

Graduate Curriculum Committee

Minutes

September 14, 2023

Meeting Materials

Voting Conducted

via Zoom

I. Presentation and review of the Minutes from the May Meeting of the Graduate Curriculum Committee (GCC).

II. Update(s) to the Committee: The following was reviewed by the Graduate Curriculum Committee (GCC) previously. The GCC felt further follow-up and/or clarifications were necessary before the proposals could move forward to the University Curriculum Committee (UCC). Suggestions and/or follow-up required are noted below the proposals.

MED – Neuroscience

1. GMS 5XXX *Navigating the Neuroscience PhD Program*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18483>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

VM – Graduate Studies Committee

2. VME 6XXX *New Approach Methodologies in Toxicology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/17827>

Proposal has been approved by the GCC.

III. Course Change Proposals: The following proposals are newly requested revisions to existing courses already within the current course catalog in curriculum inventory. The changes requested are listed below each of the proposals.

MED – Neuroscience COP - Pharmaceutical Outcomes and Policy

1. GMS 6022 *Principles of Neurophysiology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18547>

Proposal has been approved by the GCC.

2. GMS 6701 *Functional and Comparative Neuroanatomy for Professionals*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18545>

Proposal has been approved by the GCC.

COP – Pharmaceutical Outcomes and Policy

3. PHA 6279 *Pharmaceutical Outcomes and Policy Seminar*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18654>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

IV. New 5XXX Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

MED - Biochemistry and Molecular Biology

1. BCH 5206 *Medical Metabolism*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18717>

Proposal has been approved by the GCC with a note that the course number selected is not guaranteed as it will be assigned by SCNS.

2. BCH 5930 *Journal Colloquy*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18718>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

v. New Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

COE – School of Human Development and Organizational Studies in Education

1. EDF 7XXX *AI for Evaluation in Educational Environments*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18367>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

2. EDH 6XXX *Academic and Student Affairs Collaborations*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18395>

Proposal has been approved by the GCC.

3. EDH 6XXX *Coaching Models for Student Success in Higher Education*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18396>

Proposal has been approved by the GCC.

ENG – Nuclear and Radiological Engineering

4. ENU 6XXX *Advanced Radiation Measurement Laboratory*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18260>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

5. ENU 6XXX *Power Plant Simulation*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18266>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

CALS – Entomology and Nematology

6. ENY 6941 *Practical Work Experience*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18460>

Proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

SFRC – Forest Resources and Conservation

7. FOR 6XXX *Management and Restoration of Invaded Ecosystems*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/17550>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

8. FOR 6XXXC *Urban Forestry*
Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18372>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

CALS – Microbiology and Cell Science

9. MCB 6937 *AI in Agricultural and Life Sciences*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/17091>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

JOU – Mass Communication

10. MMC 6XXX *Academic Writing*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18566>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

11. MMC 6XXX *Computer-Mediated Communications*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18790>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

12. MMC 6XXX *Critical and Cultural Theories in Media Studies*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18587>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

13. MMC 6XXX *Media Psychology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18772>

Proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

14. MMC 6XXX *Risk Communication*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18588>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

PHHP – Biostatistics

15. PHC 6XXX *Statistical and Computational Analysis of Genomic Data*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18649>

Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

VM – Graduate Studies Committee

16.VME 6XXX *Ecotoxicology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/17699>

Proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

VI. Information Items:

1. [EME 5404](#) – 18455 – Change prerequisites
2. [EME 6637](#) – 18457 – Change course title and prerequisites
3. [PHA 6856](#) – 18776 – Change course title
4. [PHA 6905c](#) – 18370 – Change course title
5. [PHC 6068](#) – 18593 – Change course number, description, and objectives
6. [SUR 6377](#) – 18428 – Change prerequisites

Graduate Curriculum Committee

Agenda

October 12, 2023
Meeting Materials

Voting Conducted
via Zoom

I. Presentation and review of the Minutes from the September Meeting of the Graduate Curriculum Committee (GCC).

II. Update(s) to the Committee: The following was reviewed by the Graduate Curriculum Committee (GCC) previously. The GCC felt further follow-up and/or clarifications were necessary before the proposals could move forward to the University Curriculum Committee (UCC). Suggestions and/or follow-up required are noted below the proposals.

There are no updates to present at this time.

III. Course Change Proposals: The following proposals are newly requested revisions to existing courses already within the current course catalog in curriculum inventory. The changes requested are listed below each of the proposals.

There are no modifications to present at this time.

IV. New 5XXX Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

There are no new courses submitted through the 5000-level path to present.

V. New Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

ENG – Biomedical Engineering

1. BME 6XXX *Patient Dosimetry in Medical Imaging and Radiotherapy*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18740>

This course will review the methods and techniques for assessing organ doses in medical imaging and radiotherapy techniques through the use of computational dosimetry.

CLAS – Economics

2. ECO 7116 *Microeconomic Theory 2*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18738>

Introduces game theory, public goods and externalities, and adverse selection and moral hazard. Applies pure-strategy and mixed-strategy Nash Equilibria solution concepts to solve

simultaneous-play games. Develops Bayesian Nash Equilibria solution concepts for dynamic games. Solves monopolists' profit-maximization problem. Examines other inefficiencies stemming from public goods, externalities, and information asymmetries.

MED – Pathology, Immunology and Laboratory Medicine

3. GMS 6XXX *Artificial Intelligence in Healthcare Education I*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18422>

This course will provide the students with the fundamentals of artificial intelligence, including machine learning and deep learning, and how these methods can be used to learn from data as they relate to healthcare education. Students will also have opportunities to process and analyze various types of real-world healthcare and educational data to discover useful insights and knowledge.

4. GMS 6XXX *Artificial Intelligence in Healthcare Education II*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18423>

This course will build on the knowledge and skills acquired Artificial Intelligence in Healthcare Education I. Students will develop the skills necessary manipulate, analyze, visualize and present data in Python, leveraging the JupyterLab interface of the Jupyter Project. Students will learn the fundamentals of Python, coding environments, as well as libraries for data science including pandas.

MED – Neuroscience

5. GMS 6XXX *Computational Skills for Neuroscience*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18843>

We will teach basic software skills for neuroscience graduate students and how computing can enhance and accelerate neuroscience research.

MED – Pathology, Immunology and Laboratory Medicine

6. GMS 6XXX *Foundations of Healthcare Education*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18419>

This course provides an overview of the field of medical education, including its history, principles, and current trends. Students will learn about the various stages and components of medical education, from pre-medical education to postgraduate medical education. Topics will include curriculum design and development, teaching and learning methods, assessment in medical education, accreditation and regulation, and the impact of technology and innovation on medical education.

7. GMS 6XXX *Research Design in Healthcare Education*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18421>

This course provides information on medical education research and program evaluation methodologies as well as scholarship opportunities revolving around the healthcare educational setting. The course assists students in transforming ideas and problems into researchable questions or aims, and appropriate approaches to conducting meaningful research or evaluation at the undergraduate and graduate medical education levels as well as within the healthcare setting related to education.

8. GMS 7XXX *Practicum in Learning Analytics and Artificial Intelligence*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18417>

This course will serve as a culminating experience for learners. Learners will apply knowledge and skills learned during coursework to design and implement scholarly projects using artificial intelligence / machine learning methods. The final project will consist of a publication ready manuscript.

CBA – Marketing

9. MAR 6XXX *Business to Business Marketing*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18403>

The course examines the link between business-to-business (B2B) marketing decisions, strategy, organizational buying behavior, and selling. B2B markets are more challenging than consumer markets and demand specific skills from marketers. The buyers in B2B markets often deal with complex products, have product specialty skills, are more knowledgeable (compared with B2C buyers), and are more demanding of their suppliers.

CALS – Microbiology and Cell Science

10. MCB 6XXX *Computational Genomics and Epigenomics*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18512>

Genomics and epigenomics utilize high-throughput sequencing technologies in understanding biology questions. The primary goal of this course is to introduce history, theory, latest advances, and computational approaches in (epi)genomics for conducting large-scale genomic analyses. Course topics include sequence alignment, genome assembly and annotation, variant identification, transcriptomics, small RNAs, DNA methylation, histone modification, open chromatin region, and 3D chromatin interaction.

COP – Pharmacotherapy and Translational Research

11. PHA 6XXX *Forensic Ethics*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18767>

Provide a background on the unique ethical considerations that forensic scientists face; students will explore what the guiding principles are for ethics in forensic science, the culture of the criminal justice system, and how to consider ethics both scientifically and in the courtroom.

PHHP – Public Health

12.PHC 6XXX *Public Health Leadership*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18744>

This graduate course focuses on leadership and management within the Public Health field. Through completion of this course, students acquire knowledge and skills to grow as a public health professional, build collaborative professional relationships, work effectively as a team member, and lead public health efforts.

CALS – Plant Pathology

13.PLP 6XXX *Fastidious Bacteria and Plant Diseases*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18495>

This advanced graduate course provides in depth explanations of the complicated and varied cycles of plant diseases caused by insect transmitted, vascular-colonizing fastidious bacteria including mollicutes, Candidatus Liberibacters, and Xylella fastidiosa, including their classification, biology, symptomatology, epidemiology, transmission, plant responses, insect-vector interactions, and management strategies.

CBA – Finance, Insurance and Real Estate

14.REE 6XXX *Law of Real Estate Transactions*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18531>

The focus of this course is on the major legal concepts, principles, statutes, and contracts that regulate and govern the negotiation, financing and closing of real estate transactions. Both residential and commercial transactions will be discussed; however, the focus will be on commercial real estate. Emphasis will be on the legal aspects of a transaction: ownership of real property, contract law, types of conveyances, legal descriptions, surveys and plats, ad valorem taxation and financing.

HHP – Sport Management

15.SPM 5XXX *The Racquet Sports Industry*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18517>

Covers racquet sports business leadership. Topics covered include differing facility types and differing governance, management and operations of club businesses, and technology advancements related to operations. A section of the class will also focus on tennis history and emerging trends in complementary racquet sports.

16.SPM 6XXX *Advanced Sport Law*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/17718>

This course is designed to further student understanding of foundational legal principles in the field of sport management, especially those principles governing contractual relationships, agency representations, and liability for wrongful conduct. This course builds on the basic principles of law students studied in the introductory Sports Law course.

CLAS – Sociology

17.SYA 6XXX *Professional Development in Sociology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18835>

Introduction to professional practices in sociology and criminology. Overview of research ethics, science communication, and other elements of professional practice in research and teaching. Review of scholarly literature in one's research topic as a first step toward a research proposal. Required for sociology and criminology graduate students.

DCP – Urban and Regional Planning

18.URP 6XXX *Community Engagement*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18554>

This course provides instruction and hands on experience with community engagement and stakeholder collaboration, especially within an urban and regional planning context and in support of diversity, equity, and inclusion.

VI. Information Items:

1. [GMS 6022](#) – 18546 – Change credit hours 3 to 2
2. [GMS 6290](#) – 18728 – Change credits from Non-repeatable to Repeatable (max 12)
3. [SYA 6905](#) – 18548 – Change variable and maximum repeatable credit (max 15)
4. [VME 6616](#) – 18837 – Change to course title
5. [VME 6617](#) – 18838 – Change to course title

Course|New for request 18740

Info

Request: BME 6XXX Patient Dosimetry in Medical Imaging and Radiotherapy

Description of request: Create new graduate-level course in BME geared towards BME graduate students and PhD students in the Medical Physics program.

Submitter: Krista Smith kristasmith@ufl.edu

Created: 12/29/2020 5:34:12 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
BME

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:
6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Intermediate

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles.

Response:
Patient Dosimetry in Medical Imaging and Radiotherapy

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Patient Dosim Med Imag & Rad

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:

3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:

This course will review the methods and techniques for assessing organ doses in medical imaging and radiotherapy techniques through the use of computational dosimetry.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

Upper - level college physics

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and undergraduate PBH student should be written as follows: HSC 3502(C) & (HSC 3057 or HSC 4558) & UGPBH

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
None

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:
This course is an elective for those students interested in biomedical imaging, as well as students in the UF Medical Physics graduate program. The course includes hands on practicum exercises to include image segmentation of CT and MR images, construction of virtual computational models of medical patients in both their voxelized and polygon-mesh formats, fundamentals of Monte Carlo radiation transport techniques, techniques for generating x-ray spectra, and the process by which virtual patients may be given both virtual imaging exams (radiographs, CT, nuclear medicine scans) and radiotherapy cancer treatments (photon or proton beams).

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
Develop an in-depth understanding of the tools and methods used to assess radiation dose to tissues and organs in patients either imaged with ionizing radiation (radiography, fluoroscopy, computed tomography, and nuclear medicine) or treated for cancer using photons, protons, or radiopharmaceuticals. Hands on work will include the use of the PCXMC Monte-Carlo based code for assessment of imaging dose to patients and the Monte Carlo radiation transport codes PHITS and TOPAS.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
The course will be based on instructor lecture notes, peer-reviewed journal articles, and selected reports.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Please see enclosed syllabus.

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If

participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Practicum Assignments - 100 points, 60% of final grade

Mldterm Exam - 100 points, 20% of final grade

Final Exam - 100 points, 20% of final grade

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Wesley Bolch

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accomodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.*

* *

Response:

Yes

PATIENT DOSIMETRY IN MEDICAL IMAGING AND RADIOTHERAPY

BME 6xxxx – Section xxxx

Class Periods: xxxx

Location: xxxx

Academic Term: Spring 20xx

Instructor:

Wesley Bolch, PhD

wbolch@ufl.edu

(352) 273-0303

Office Hours:

Teaching Assistants:

Please contact through the Canvas website

- STS/TA 1, office location, office hours
- STS/TA 2, office location, office hours

Course Description (3 Credits)

Students will review the methods and techniques for assessing organ doses in medical imaging and radiotherapy techniques through the use of computational dosimetry. The course L-Series of lectures will discuss various modalities of imaging, preceded by a review of our understanding of how radiation exposure might induce cancer in humans and at what level. The latter portion of the course will cover radiotherapy. The P-Series of practicum sessions will give hands-on experience with computational phantoms and their use with the PHITS radiation transport code.

Course Prerequisites: None

Course Objectives:

Develop an in-depth understanding of the tools and methods used to assess radiation dose to tissues and organs in patients either imaged with ionizing radiation (radiography, fluoroscopy, computed tomography, and nuclear medicine) or treated for cancer using photons, protons, or radiopharmaceuticals. Hands on work will include the use of the PCXMC Monte-Carlo based code for assessment of imaging dose to patients and the Monte Carlo radiation transport codes PHITS and TOPAS.

Required Textbooks and Software:

The course will be based on instructor lecture notes, peer-reviewed journal articles, and selected reports. Registration for the PHITS code will be made through the code's development office at JAEA – Japan Atomic Energy Agency.

Recommended Materials:

None

Course Schedule

Week	Date	Lecture No. and Topic (<i>L - Lecture / P - Practicum</i>)	Lecturer
1	9	L1 - Course Introduction / Codes and Software Access	All
	11	P1 - Monte Carlo Methods	Dawson/Smither
	11	P1 - Monte Carlo Methods	Dawson/Smither
2	16	L2 - Computational and Physics Human Phantoms for Dose Assessment	Bolch
	18	P2 - Introduction to the PHITS Code	Dawson/Smither
	18	P2 - Introduction to the PHITS Code	Dawson/Smither
3	23	L3 - Historical Review of the Effective Dose and its Use in Medicine	Bolch
	25	P3 - Basic Geometries and Sources in PHITS	Dawson/Smither
	25	P3 - Basic Geometries and Sources in PHITS	Dawson/Smither
4	30	L4 - Historical Review of Skeletal Dosimetry	Bolch
	Feb 1	P4 - Source Modeling for Radiography / Fluoroscopy in PHITS	Dawson/Smither
	1	P4 - Source Modeling for Radiography / Fluoroscopy in PHITS	Dawson/Smither
5	6	L5 - Studies Linking Radiation Exposure to Cancer Induction	Bolch
	8	P5 - Organ Dosimetry for Radiography / Fluoroscopy in PHITS	Dawson/Smither
	8	P5 - Organ Dosimetry for Radiography / Fluoroscopy in PHITS	Dawson/Smither
6	13	L6 - Dose Dependent Models of Cancer Incidence and Mortality	Bolch
	15	P6 - Organ Dosimetry for CT in PHITS	Dawson/Smither
	15	P6 - Organ Dosimetry for CT in PHITS	Dawson/Smither
7	20	L7 - Organ Dosimetry in Radiography / Fluoroscopy	Bolch
	22	P7 - Organ Dosimetry for Nuclear Medicine in PHITS	Dawson/Smither
	22	P7 - Organ Dosimetry for Nuclear Medicine in PHITS	Dawson/Smither
8	27	L8 - Organ Dosimetry in Computed Tomography	Bolch
	29	P8 - Radiation Shielding for Diagnostic Imaging in PHITS	Dawson/Smither
	29	P8 - Radiation Shielding for Diagnostic Imaging in PHITS	Dawson/Smither
9	Mar 5	No Classes - Spring Break	
	7	No Classes - Spring Break	
	7	No Classes - Spring Break	
10	12	L9 - Organ Dosimetry in Diagnostic Nuclear Medicine	Bolch
	14	P9 - Radiation Detector Modeling in PHITS	Dawson/Smither
	14	P9 - Radiation Detector Modeling in PHITS	Dawson/Smither
11	19	L10 - Tumor Control Probability (TCP)	Bolch
	21	P10 - Organ Dosimetry for Brachytherapy in PHITS	Dawson/Smither
	21	P10 - Organ Dosimetry for Brachytherapy in PHITS	Dawson/Smither
12	26	L11 - Normal Tissue Complication Probability (NTCP)	Bolch
	28	P11 - Organ Dosimetry for Photon EBRT in PHITS	Dawson/Smither
	28	P11 - Organ Dosimetry for Photon EBRT in PHITS	Dawson/Smither
13	Apr 2	L12 - Organ Dosimetry in Photon Radiotherapy	Bolch
	4	P12 - Organ Dosimetry for Proton and Carbon Ion EBRT in PHITS	Dawson/Smither
	4	P12 - Organ Dosimetry for Proton and Carbon Ion EBRT in PHITS	Dawson/Smither
14	9	L13 - Organ Dosimetry in Proton and Carbon Ion Therapy	Bolch
	11	P13 - Radiation Shielding for Radiation Therapy in PHITS	Dawson/Smither
	11	P13 - Radiation Shielding for Radiation Therapy in PHITS	Dawson/Smither
15	16	L14 - Organ Dosimetry in Radiopharmaceutical Therapy	Bolch
	18	P14 - Other MC Radiation Transport Codes and MC Based TPS	Dawson/Smither
	18	P14 - Other MC Radiation Transport Codes and MC Based TPS	Dawson/Smither

Practicum Sessions – Brief Description

P1 – Monte Carlo Methods	Basic principles of Monte Carlo sampling and its application to radiation transport. General description of stylized, voxel, and mesh-type computational phantoms and their uses within Monte Carlo radiation transport code systems.
P2 – Introduction to PHITS Code	Description of PHITS input and output file structure including card sections and tallies. General description of constructing irradiation geometries. Overview of the PHITS manual and associated sources.
P3 – Basic Geometries and Sources in PHITS	Creation of PHITS input file for point, plane, and volume sources and scoring of radiation field quantities using tallies in various environments. Subsequent output files will demonstrate proper calculation by visualization of various problem iterations.
P4 – Source Modeling for Radiography/Fluoroscopy in PHITS	Creation of PHITS input file to demonstrate bremsstrahlung x-ray production within a radiographic x-ray tube and subsequent spectra generation. Analysis on x-ray spectrum generation via HVL measurements and demonstration of anode heel effect.
P5 – Organ Dosimetry for Radiography/Fluoroscopy in PHITS	Creation of PHITS input file to demonstrate how to calculate organ dose coefficients and to generate a virtual radiographic image for common general radiographic and fluoroscopic examinations on the ICRP reference family of voxel computational phantoms. Review and implementation of UF SNIPs protocols.
P6 – Organ Dosimetry for CT in PHITS	Creation of PHITS input file to demonstrate slice-specific organ dose coefficient computation using pre-built CT source term and ICRP mesh reference computational phantoms. Post-processing of output files to compute organ doses for common CT exams. Review and implementation of method outlined in Turner <i>et al.</i> (2009).
P7 – Organ Dosimetry for Nuclear Medicine in PHITS	Creation of PHITS input files for common radioisotopes used in nuclear medicine. General overview of MIRDS schema and direct calculation of radionuclide S values with comparison between reference voxel and mesh-type computational phantoms.
P8 – Radiation Shielding for Diagnostic Imaging in PHITS	Creation of PHITS input files modeling a general radiography room with validation of room shielding from both direct and scatter radiation across all walls.
P9 – Radiation Detector Modeling in PHITS	Creation of PHITS input files modeling common radiation detectors and description of their computational model validation workflow.
P10 – Organ Dosimetry for Brachytherapy in PHITS	Creation of PHITS input files for simulation of common brachytherapy treatments in adult MRCPs. Demonstrate utility of mesh-type phantoms over voxel phantoms.
P11 – Organ Dosimetry for Photon EBRT in PHITS	Creation of PHITS input files for simulation of linear accelerator radiotherapy on MRCPs. Quantification and comparison of organ dose contributions from direct (focal) and indirect (extra-focal) radiations.
P12 – Organ Dosimetry for Proton and Carbon Ion EBRT in PHITS	Creation of PHITS input files for simulation of proton and carbon ion radiotherapy on MRCPs. Quantification and comparison of organ dose contributions from direct (focal) and indirect (extra-focal) radiations.
P13 – Radiation Shielding for Radiation Therapy in PHITS	Creation of PHITS input files modeling a general linear accelerator treatment vault with validation of room shielding from both direct and scatter radiations across all walls.
P14 – Therapy Beam Profile Modeling in PHITS	Creation of PHITS input files to demonstrate PDD and beam profiles across each axis as a function of depth for both photon and proton beams. Description of beam profiles with flattening filters versus flattening filter free beams. Consultation of AAPM TG-51.

Attendance and Expectations:

Students are expected to attend all classes either in person or by zoom. Students must notify the instructor of expected absence in advance and make arrangements to make up missed material. Excused absences must be consistent with university policies in the graduate catalog (<https://catalog.ufl.edu/graduate/regulations>) and require appropriate documentation. Attendance will be monitored through periodic verification in class. During class, all students must put away all cell phones. Students are encouraged to bring laptops to class to for class note taking. Excused absences must be consistent with university policies in the Graduate Catalog (<https://catalog.ufl.edu/graduate/regulations>) and require appropriate documentation. Additional information can be found here: <https://gradcatalog.ufl.edu/graduate/regulations/>

Evaluation of Grades

Grading Assignment	Total Points	Percentage of Final Grade	Exam Dates
Practicum Assignments	100	60%	
Midterm Exam	100	20%	TBA
Final Exam	100	20%	TBA

Grading Policy

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings

may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code / Student Conduct Code.

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Conduct Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources - *Health and Wellness*

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Campus Resources - *Academic Resources*

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling.
<https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> and <https://care.dso.ufl.edu>.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.

Course|New for request 18738

Info

Request: ECO 7116 Microeconomic Theory 2

Description of request: The Department of Economics proposes creating a new course, ECO 7116: Microeconomic Theory 2.

Submitter: David Knight thomas.knight@ufl.edu

Created: 7/26/2023 12:43:32 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
ECO

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:
7

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
116

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Advanced

- 1000 level = *Introductory undergraduate*
- 2000 level = *Introductory undergraduate*
- 3000 level = *Intermediate undergraduate*
- 4000 level = *Advanced undergraduate*
- 5000 level = *Introductory graduate*
- 6000 level = *Intermediate graduate*
- 7000 level = *Advanced graduate*
- 4000/5000= *Joint undergraduate/graduate*
- 4000/6000= *Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Microeconomic Theory 2

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Microeconomic Theory 2

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

*Indicate all platforms through which the course is *<i>currently</i>* *<i>planned</i>* to be delivered.*

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week <i>on average </i>throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Introduces game theory, public goods and externalities, and adverse selection and moral hazard. Applies pure-strategy and mixed-strategy Nash Equilibria solution concepts to solve simultaneous-play games. Develops Bayesian Nash Equilibria solution concepts for dynamic games. Solves monopolists' profit-maximization problem. Examines other inefficiencies stemming from public goods, externalities, and information asymmetries.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite. Please verify that any prerequisite courses listed are active courses.

Response:

ECO 7115. ECO 7115 is taught once per year.

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The Department of Economics proposes introducing a second core doctoral course in microeconomic theory. All students in the Economics PhD program would be enrolled in ECO 7115 in their first semester in the program and in this new proposed Microeconomic Theory 2 courses in their second semester in the program. The topical coverage of this new proposed course would better prepare students for their second-year coursework and eventually for completing their dissertation research.

The Department has "freed up" space in the students' academic schedule by no longer enrolling them in ECO 7408 and ECO 7404. Both of these courses are redundant for students in this specific PhD program. All students who have been admitted to the Economics PhD program in the past several years had an adequate background with the ECO 7408 and ECO 7404 material from their undergraduate or master's programs.

The proposed curriculum update is in line with Economics PhD at almost all peer institutions and programs.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

Students that successfully complete this course will be able to: (i) identify pure-strategy and mixed-strategy Nash Equilibria in simultaneous-play and dynamic games; (ii) identify profit-maximizing quantity choices and pricing in monopoly markets; (iii) describe the deadweight loss that arises when a market is monopolized; (iv) describe the efficiency that arises with public goods or externalities; and (v) define and describe the phenomena of adverse-selection and moral hazard.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Microeconomic Theory by Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green (Oxford University Press).

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Course Schedule

Week 1: Course Introduction and Basic Elements of Game Theory

Readings: Course Syllabus and Chapter 7

Week 2: Simultaneous-Play Games
Readings: Chapter 8

Week 3: Simultaneous-Play Games
Readings: Chapter 8

Week 4: Dynamic Games
Readings: Chapter 9

Homework 1 due

Week 5: Dynamic Games
Readings: Chapter 9

Week 6: Market Power
Readings: Chapters 12

Homework 2 due

Week 7: Market Power
Readings: Chapter 12

Week 8: Course Review and Midterm Exam

Homework 3 due

Midterm Exam during class on [INSERT DATE]

Week 9: Public Goods and Externalities
Readings: Chapter 11

Week 10: Public Goods and Externalities
Readings: Chapter 11

Week 11: Adverse Selection
Readings: Chapter 13

Homework 4 due

Week 12: Adverse Selection
Readings: Chapter 13

Week 13: The Principal-Agent Problem
Readings: Chapter 14

Week 14: The Principal-Agent Problem
Readings: Chapter 14

Week 15: Course Review and Tying Topics Together
Homework 5 due

Final Exam at [INSERT TIME] on [INSERT DATE]

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

The course grade is determined by your performance on five problem solving exercises (4 points each), a two-hour midterm exam (40 points), and a cumulative two-hour final exam (40 points), following the scale below:

A	92 – 100 points	C	73 – 77 points
A-	90 – 91 points	C-	70 – 72 points
B+	88 – 89 points	D+	68 – 69 points
B	83 – 87 points	D	63 – 67 points
B-	80 – 82 points	D-	60 – 62 points
C+	78 – 79 points	E	0 – 59 points

Assume all grades are rounded to the nearest integer. For example, a 91.49 will be assigned an A-, and a 91.50 will be assigned an A.

Make up assignments will be arranged in accordance with UF policy. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies.

The above grading policies are consistent with UF policies regarding grade determination. This information can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Information regarding UF attendance policies can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

To Be Determined

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:
Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy. A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:
Yes

ECO 7115: Microeconomic Theory 2 (3 Credits)

Instructor: [INSERT NAME]

Office: [INSERT LOCATION]

Office Hours: Two two-period blocks per week will be scheduled on the syllabus

Office Phone: [INSERT PHONE NUMBER]

E-mail: [INSERT EMAIL ADDRESS]

Teaching Assistant: [INSERT NAME]

Office: [INSERT LOCATION]

Office Hours: Two two-period blocks per week will be scheduled on the syllabus

Office Phone: [INSERT PHONE NUMBER]

E-mail: [INSERT EMAIL ADDRESS]

Prerequisites: ECO 7115

Course Readings (required): *Microeconomic Theory* by Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green (Oxford University Press).

Course Description: Continuation of Microeconomic Theory 1. Introduces game theory, public goods and externalities, and adverse selection and moral hazard. Applies pure-strategy and mixed-strategy Nash Equilibria solution concepts to solve simultaneous-play games. Develops Bayesian Nash Equilibria solution concepts for dynamic games. Solves monopolists' profit-maximization problem. Examines other inefficiencies stemming from public goods, externalities, and information asymmetries.

Course Objectives: Students that successfully complete this course will be able to: (i) identify pure-strategy and mixed-strategy Nash Equilibria in simultaneous-play and dynamic games; (ii) identify profit-maximizing quantity choices and pricing in monopoly markets; (iii) describe the deadweight loss that arises when a market is monopolized; (iv) describe the efficiency that arises with public goods or externalities; and (v) define and describe the phenomena of adverse-selection and moral hazard.

Class Format: This is a full semester class that will meet three periods per week. The weekly format will consist of one two-period lecture and one one-period lecture each week. The topic outline, schedule by week, and related readings are listed below.

Practical Data Assignments: There are five problem sets that will be assigned during this course. These problem sets relate to the topics of the preceding lectures and are intended to offer you practice with the relevant solution techniques. In some cases, questions offer important extensions of the material covered in class. All problem sets are due at the beginning of class (i.e., [INSERT TIME]) on the due date. While you may work with your classmates on these problems sets, each student is responsible for submitting their own work. Copying another student's answers is not permitted.

The Practical Data Assignment due dates are as follows:

Data Assignment #1 due at [INSERT TIME] on [INSERT DATE]
Data Assignment #2 due at [INSERT TIME] on [INSERT DATE]
Data Assignment #3 due at [INSERT TIME] on [INSERT DATE]
Data Assignment #4 due at [INSERT TIME] on [INSERT DATE]
Data Assignment #5 due at [INSERT TIME] on [INSERT DATE]

Grading: The course grade is determined by your performance on five problem solving exercises (4 points each), a two-hour midterm exam (40 points), and a cumulative two-hour final exam (40 points), following the scale below:

A	92 – 100 points	C	73 – 77 points
A-	90 – 91 points	C-	70 – 72 points
B+	88 – 89 points	D+	68 – 69 points
B	83 – 87 points	D	63 – 67 points
B-	80 – 82 points	D-	60 – 62 points
C+	78 – 79 points	E	0 – 59 points

Assume all grades are rounded to the nearest integer. For example, a 91.49 will be assigned an A-, and a 91.50 will be assigned an A.

Make up assignments will be arranged in accordance with UF policy. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. [Click here to read the university attendance policies.](#)

The above grading policies are consistent with UF policies regarding grade determination. This information can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Information regarding UF attendance policies can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Professionalism and Honor Code: Students are expected to conduct themselves professionally. Students must arrive to class on time.

UF students are bound to not cheat or plagiarize, and are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: ‘On my honor, I have neither given nor received unauthorized aid in doing this assignment.’” More details on the Honor Code, including sanctions for violations, can be found at:
<http://gradcatalog.ufl.edu/content.php?catoid=8&navoid=1493#student-honor-code> .

Students are expected to abide by UF copyright policies:
(see <https://security.ufl.edu/learn-information-security/protect-yourself/copyright-information/>
and <http://www.it.ufl.edu/policies/intellectual-property/copyright/>).

Students Requiring Accommodations: Students with disabilities requesting accommodations should first register with the Disabilities Resource Center (392-8565, <https://disability.ufl.edu/>), providing appropriate documentation. Once registered, students will receive an accommodation letter that can be presented to the instructor when requesting accommodation. Please register at the beginning of the course if seeking accommodations.

Course Evaluation: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner.](#) Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/.
[Summaries of course evaluation results are available to students here.](#)

Health Counseling and Emergencies:

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Course Schedule

- Week 1:** **Course Introduction and Basic Elements of Game Theory**
Readings: Course Syllabus and Chapter 7
- Week 2:** **Simultaneous-Play Games**
Readings: Chapter 8
- Week 3:** **Simultaneous-Play Games**
Readings: Chapter 8
- Week 4:** **Dynamic Games**
Readings: Chapter 9
Homework 1 due
- Week 5:** **Dynamic Games**
Readings: Chapter 9
- Week 6:** **Market Power**
Readings: Chapters 12
Homework 2 due
- Week 7:** **Market Power**
Readings: Chapter 12
- Week 8:** **Course Review and Midterm Exam**
Homework 3 due
Midterm Exam during class on [INSERT DATE]
- Week 9:** **Public Goods and Externalities**
Readings: Chapter 11
- Week 10:** **Public Goods and Externalities**
Readings: Chapter 11
- Week 11:** **Adverse Selection**
Readings: Chapter 13
Homework 4 due
- Week 12:** **Adverse Selection**
Readings: Chapter 13
- Week 13:** **The Principal-Agent Problem**
Readings: Chapter 14
- Week 14:** **The Principal-Agent Problem**
Readings: Chapter 14
- Week 15:** **Course Review and Tying Topics Together**
Homework 5 due
- Final Exam at [INSERT TIME] on [INSERT DATE]**

Course|New for request 18422

Info

Request: GMS 6XXX Artificial Intelligence in Healthcare Education I

Description of request: New graduate course

Submitter: Jason Byrd jhbyrd@ufl.edu

Created: 3/21/2023 3:58:52 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Intermediate

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Artificial Intelligence in Healthcare Education I

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
AI in Healthcare Education I

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course will provide the students with the fundamentals of artificial intelligence, including machine learning and deep learning, and how these methods can be used to learn from data as they relate to healthcare education. Students will also have opportunities to process and analyze various types of real-world healthcare and educational data to discover useful insights and knowledge.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
NA

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite. Please verify that any prerequisite courses listed are active courses.

Response:
NA

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This course will prepare students to be successful healthcare education researchers and practitioners who can use artificial intelligence in their specific subject area.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

Teaching methods include lecture, online discussion, and hands-on data assessment, analysis, and presentation. The goals of the course are:

- To provide basic understanding of the steps in the life cycle of data in biomedical and clinical research, how healthcare education data are collected.
- To familiarize students with basic principles of data management.
- To deepen students' understanding of data structure, data standards, and data quality issues in data-intensive biomedical research.
- To help students understand ethic and legal issues healthcare and education data
- To introduce the concepts of “big data”, and the associated tools, methods and approaches, in particular artificial intelligence and its related subfields: machine learning, reinforcement learning, and deep learning.
- To give students access to exploratory data analysis techniques and tools as they pertain to healthcare and education.

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

GRADE COMPOSITION:

- Online participation: 10%
- Homework assignments (3): 30% (10% each)
- Midterm (project proposal and presentation): 30%
- Final (project report and presentation): 30%

GRADING SCALE:

Letter Grade Grade Points Grade Percentage

A 4.0 95-100

A- 3.67 90-94

B+ 3.33 87-89

B 3.0 83-86

B- 2.67 80-82

C+ 2.33 77-79

C 2.0 73-76

C- 1.67 70-72

D+ 1.33 67-69

D 1.0 63-66

D- .67 60-62

E 0 < 59

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

To be determined

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.*

Response:
Yes

ARTIFICIAL INTELLIGENCE IN HEALTHCARE EDUCATION I

COURSE NUMBER: GMS XXXX

CREDIT HOURS: 3

SEMESTER/YEAR: TBD/TBD

CLASS LOCATION: ONLINE

CLASS MEETING TIME(S): NA (ONLINE)

INSTRUCTOR:

FRANÇOIS MODAVE, PHD
Dept of Anesthesiology, Medical Science Building M507
fmodave@anest.ufl.edu
352-273-8952

OFFICE HOURS: TBD

COURSE TA OR COORDINATOR: TBD

COURSE WEBSITE: TBD

COURSE COMMUNICATIONS: Students should ask questions about the course and material covered in the course on the online discussion board to ensure that questions and answers benefit all students and to generate discussions. Private questions should be sent to the instructor via e-mail.

REQUIRED OR RECOMMENDED TEXTBOOKS: There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

- *Artificial Intelligence, Machine Learning, and Deep Learning*. O. Campesato. Ed. Mercury Learning and Information, 2020. ISBN-13: 978-1683924678
- *Intelligence-Based Medicine: Artificial Intelligence and Human Cognition in Clinical Medicine and Healthcare*. A. Chang. Ed. Academic Press, 1st edition, 2020. ISBN-13: 978-0128233375

- *Learning from Data*. YS Abu-Mostafa et al. Ed. AMLBook, 2012. ISBN-13: 978-1600490064
- *Deep Learning*. I. Goodfellow et al. Ed. MIT Press, 2016. ISBN-13: 978-0262035613
- *Mathematics for Machine Learning*. MP Deisenroth. Ed. Cambridge University Press, 1st edition, 2020. ISBN-13: 978-1108455145
- *Artificial Intelligence: A Modern Approach*. S Russell and P. Norvig. Ed. Pearson, 4th edition, 2020. ISBN-13: 978-0134610993

MATERIALS AND SUPPLIES FEES: NA

COURSE DESCRIPTION: This course is designed to equip students with the ability to use artificial intelligence and data science skills to leverage effectively and efficiently data collected from technology-enhanced learning environments. This course will provide the students with the fundamentals of artificial intelligence, including machine learning and deep learning, and how these methods can be used to learn from data as they relate to healthcare education. Students will also have opportunities to process and analyze various types of real-world healthcare and educational data to discover useful insights and knowledge. The goal of this course is to prepare students to be successful healthcare education researchers and practitioners who can use artificial intelligence in their specific subject area.

PREREQUISITE KNOWLEDGE AND SKILLS: This course requires some elementary knowledge of calculus (derivation and optimization) as well as elementary understanding of matrix manipulations, and elementary probabilities and statistics, as they are typically covered in health-related graduate programs.

COURSE GOALS AND/OR OBJECTIVES: Teaching methods include lecture, online discussion, and hands-on data assessment, analysis, and presentation. The goals of the course are:

- To provide basic understanding of the steps in the life cycle of data in biomedical and clinical research, how healthcare education data are collected.
- To familiarize students with basic principles of data management.
- To deepen students' understanding of data structure, data standards, and data quality issues in data-intensive biomedical research.
- To help students understand ethic and legal issues healthcare and education data

- To introduce the concepts of “big data”, and the associated tools, methods and approaches, in particular artificial intelligence and its related subfields: machine learning, reinforcement learning, and deep learning.
- To give students access to exploratory data analysis techniques and tools as they pertain to healthcare and education.

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE MASTER OF SCIENCE IN HEALTHCARE EDUCATION – ARTIFICIAL INTELLIGENCE: upon taking this course, students will be able to:

1. illustrate the 4 paradigms of Artificial Intelligence
2. Comment on the data-information-knowledge-wisdom pyramid
3. Summarize the underlying approaches used for Artificial Intelligence
4. Articulate machine learning methodologies
 - a. Chart the machine learning pipeline
 - b. Present supervised, unsupervised, semi-supervised machine learning
 - c. Sketch the principles underlying reinforcement learning and deep learning
 - d. Present examples of each approach
 - e. Link how these methodologies apply to healthcare and healthcare education
5. Determine which machine learning methods to use for healthcare questions and for healthcare education
6. Assess strengths and weaknesses of Artificial Intelligence methods in healthcare education
7. Review the literature of AI-based healthcare education

INSTRUCTIONAL METHODS: this course is offered online. The course includes a variety of recorded lectures, journal articles, and online board discussions.

COURSE POLICIES:

ATTENDANCE POLICY: Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

QUIZ/EXAM DATES/POLICIES: All assignments are due on or before their due date, unless otherwise specified.

- Assignment must be turned in no later than 11:59 pm on the day that it is due.
- Late homework assignments will NOT be accepted, unless you have a **prior** approval from the instructor.
- No handwritten assignment. All assignments need to be submitted electronically either by email or the online system.

MAKE-UP POLICY: Students are allowed to make up work only as the result of illness or other unanticipated circumstances (for instance technology failure). In the event of such emergency, documentation will be required in conformance with university policy. Work missed for any other reason will earn a grade of zero.

COURSE TECHNOLOGY: This course is offered entirely online. If students have technology-related issues, reach out to UF help desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP - select option 2

ONLINE COURSE EVALUATION: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

UF Policies:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic

misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR OR NETIQUETTE: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students violating proper class behavior a first time will receive a warning. A second offense by the student will lead to a report to the Dean of Students and the Dean of the Graduate School.

GETTING HELP:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADING POLICIES:

GRADE COMPOSITION:

- Online participation: 10%
- Homework assignments (3): 30% (10% each)
- Midterm (project proposal and presentation): 30%

- Final (project report and presentation): 30%

GRADING SCALE:

Letter Grade	Grade Points	Grade Percentage
A	4.0	95-100
A-	3.67	90-94
B+	3.33	87-89
B	3.0	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.0	73-76
C-	1.67	70-72
D+	1.33	67-69
D	1.0	63-66
D-	.67	60-62
E	0	< 59

For more information on UF grade policy, please visit:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE SCHEDULE:

CRITICAL DATES: *TBD*

PROVISIONAL SCHEDULE (SUBJECT TO CHANGE):

Week	Topic	Date	Notes
1	Introduction and course overview: artificial intelligence, healthcare education, examples, technology landscape	TBD	
2	An introduction to Artificial Intelligence 1. History 2. Paradigms	TBD	
3	Data, Information, Knowledge and Actionable Knowledge 1. Data and context 2. Measure what matters 3. Data in healthcare education	TBD	

4	An introduction to machine learning 1. Methods: supervised/unsupervised/semi 2. Pipeline	TBD	Assignment 1 due (tentative)
5	Topics in machine learning 1. Lecture on supervised learning 2. Applications to healthcare education and healthcare data	TBD	
6	Topics in machine learning 1. Lecture on unsupervised learning 2. Applications to healthcare education and healthcare data	TBD	
7	Advanced topics: deep learning	TBD	
8	Project proposal and presentations	TBD	
9	Advanced topics: reinforcement learning	TBD	Assignment 2 due (tentative)
10	Introduction to Database Management Systems and Clinical Data Warehousing	TBD	
11	Using data from the Integrated Data Repository at UF	TBD	
12	Machine learning in Weka and other similar platforms	TBD	
13	An Introduction to JupyterLab	TBD	
14	Topics in AI-driven education	TBD	Assignment 3 due (tentative)
15	Final presentations of the course projects	TBD	

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Course|New for request 18423

Info

Request: GMS 6XXX Artificial Intelligence in Healthcare Education II

Description of request: New graduate course

Submitter: Jason Byrd jhbyrd@ufl.edu

Created: 3/21/2023 4:09:04 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Intermediate

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:

Artificial Intelligence in Healthcare Education II

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:

AI in Healthcare Education II

Degree Type

Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:

Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course will build on the knowledge and skills acquired Artificial Intelligence in Healthcare Education I. Students will develop the skills necessary manipulate, analyze, visualize and present data in Python, leveraging the JupyterLab interface of the Jupyter Project. Students will learn the fundamentals of Python, coding environments, as well as libraries for data science including pandas.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite. Please verify that any prerequisite courses listed are active courses.

Response:

N/A

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This course will provide the educational opportunity for students to prepare and implement code using libraries and packages to provide AI solutions to healthcare and healthcare education.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

The goals of the course are:

- To provide students with the fundamentals of the Python programming language as it applies to artificial intelligence and data science
- To familiarize students with an understanding of the diverse tools to use Python in AI, e.g., text editors, libraries and packages, and coding environments.
- To revisit the AI and data science concepts covered in the first course in a hands-on manner using Python
- To give students an understanding of Python to do data cleansing, pre-processing, and analysis as it applies to healthcare and education
- To prepare students to develop their own projects using AI to analyze healthcare and healthcare education data

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

- Python Machine Learning: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2. S. Raschka and V. Mirjalili. Ed. Packt Publishing, 3rd edition, 2019. ISBN-13: 978-1789955750
- Deep Learning with Python. F. Chollet. Ed. Manning, 2nd edition, 2021. ISBN-13: 978-1617296864
- Learning from Data. YS Abu-Mostafa et al. Ed. AMLBook, 2012. ISBN-13: 978-1600490064
- Deep Learning. I. Goodfellow et al. Ed. MIT Press, 2016. ISBN-13: 978-0262035613
- Mathematics for Machine Learning. MP Deisenroth. Ed. Cambridge University Press, 1st edition, 2020. ISBN-13: 978-1108455145
- Artificial Intelligence: A Modern Approach. S Russell and P. Norvig. Ed. Pearson, 4th edition, 2020. ISBN-13: 978-0134610993

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

- 1 Introduction and course overview: Python, data science and project
- 2 An introduction to Python Programming, History, Basic syntax
- 3 Tools to program, Text editors, Coding environment, JupyterLab
- 4 Python programming, Basic functions, Running programs and debugging
- 5 Python programming, Libraries and packages, NumPy, Pandas
- 6 Machine Learning in Python, AI packages, Examples
- 7 Supervised Machine Learning in Python
- 8 Mid semester presentations
- 9 Unsupervised Machine Learning in Python
- 10 Deep Learning in Python
- 11 Convolution neural networks and applications
- 12 Recurrent neural networks and applications
- 13 Game adversarial networks and applications
- 14 Select topics - TBD
- 15 Final presentations of the course projects

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

GRADE COMPOSITION:

- Online participation: 10%
- Homework assignments (3): 30% (10% each)
- Midterm (project proposal and presentation): 30%
- Final (project report and presentation): 30%

GRADING SCALE:

Letter Grade Grade Points Grade Percentage

A 4.0 95-100

A- 3.67 90-94

B+ 3.33 87-89

B 3.0 83-86

B- 2.67 80-82

C+ 2.33 77-79

C 2.0 73-76

C- 1.67 70-72

D+ 1.33 67-69

D 1.0 63-66

D- .67 60-62

E 0 < 59

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

FRANÇOIS MODAVE, PHD

Dept of Anesthesiology, Medical Science Building M507

fmodave@anest.ufl.edu

352-273-8952

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

ARTIFICIAL INTELLIGENCE IN HEALTHCARE EDUCATION II

COURSE NUMBER: GMS XXXX

CREDIT HOURS: 3

SEMESTER/YEAR: TBD/TBD

CLASS LOCATION: ONLINE

CLASS MEETING TIME(S): NA (ONLINE)

INSTRUCTOR:

FRANÇOIS MODAVE, PHD
Dept of Anesthesiology, Medical Science Building M507
fmodave@anest.ufl.edu
352-273-8952

OFFICE HOURS: *TBD*

COURSE TA OR COORDINATOR: *TBD*

COURSE WEBSITE: *TBD*

COURSE COMMUNICATIONS: Students should ask questions about the course and material covered in the course on the online discussion board to ensure that questions and answers benefit all students and to generate discussions. Private questions should be sent to the instructor via e-mail.

REQUIRED OR RECOMMENDED TEXTBOOKS: There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

- *Python Machine Learning: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2.* S. Raschka and V. Mirjalili. Ed. Packt Publishing, 3rd edition, 2019. ISBN-13: 978-1789955750
- *Deep Learning with Python.* F. Chollet. Ed. Manning, 2nd edition, 2021. ISBN-13: 978-1617296864

- *Learning from Data*. YS Abu-Mostafa et al. Ed. AMLBook, 2012. ISBN-13: 978-1600490064
- *Deep Learning*. I. Goodfellow et al. Ed. MIT Press, 2016. ISBN-13: 978-0262035613
- *Mathematics for Machine Learning*. MP Deisenroth. Ed. Cambridge University Press, 1st edition, 2020. ISBN-13: 978-1108455145
- *Artificial Intelligence: A Modern Approach*. S Russell and P. Norvig. Ed. Pearson, 4th edition, 2020. ISBN-13: 978-0134610993

MATERIALS AND SUPPLIES FEES: NA

COURSE DESCRIPTION: This course will build on the knowledge and skills acquired Artificial Intelligence in Healthcare Education I. Students will develop the skills necessary manipulate, analyze, visualize and present data in Python, leveraging the JupyterLab interface of the Jupyter Project. Students will learn the fundamentals of Python, coding environments, as well as libraries for data science including pandas. This course is a hands-on course in which students will be able to program the conceptual tools covered in AI in Healthcare Education I. The course will culminate with a project and presentation pertaining to healthcare education.

PREREQUISITE KNOWLEDGE AND SKILLS: This course requires having passed Artificial Intelligence in Healthcare Education I (GMS XXXX)

COURSE GOALS AND/OR OBJECTIVES: Teaching methods include lecture, online discussion, and hands-on data assessment, analysis, and presentation. The goals of the course are:

- To provide students with the fundamentals of the Python programming language as it applies to artificial intelligence and data science
- To familiarize students with an understanding of the diverse tools to use Python in AI, e.g., text editors, libraries and packages, and coding environments.
- To revisit the AI and data science concepts covered in the first course in a hands-on manner using Python
- To give students an understanding of Python to do data cleansing, pre-processing, and analysis as it applies to healthcare and education
- To prepare students to develop their own projects using AI to analyze healthcare and healthcare education data

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE MASTER OF SCIENCE IN HEALTHCARE EDUCATION – ARTIFICIAL INTELLIGENCE: upon taking this course, students will be able to:

1. Evaluate and test which Python tools to use to address a data science question
2. Prepare and implement code using libraries and packages to provide AI solutions to healthcare and healthcare education questions
3. Articulate an AI pipeline to answer healthcare and healthcare education questions
 - a. Chart the data available
 - b. Examine the approaches that can be used
 - c. Organize the validation of the approach
4. Assess critically AI solutions to healthcare and healthcare education
5. Reflect on the significance of the results

INSTRUCTIONAL METHODS: this course is offered online in an online format. The course includes a variety of recorded lectures, journal articles, and online board discussions.

COURSE POLICIES:

ATTENDANCE POLICY: Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

QUIZ/EXAM DATES/POLICIES: All assignments are due on or before their due date, unless otherwise specified.

- Assignment must be turned in no later than 11:59 pm on the day that it is due.
- Late homework assignments will NOT be accepted, unless you have a *prior* approval from the instructor.
- No handwritten assignment. All assignments need to be submitted electronically either by email or the online system.

MAKE-UP POLICY: Students are allowed to make up work only as the result of illness or other unanticipated circumstances (for instance technology failure). In the event of such emergency, documentation will be required in conformance with university policy. Work missed for any other reason will earn a grade of zero.

COURSE TECHNOLOGY: This course is offered entirely online. If students have technology-related issues, reach out to UF help desk at:

- <http://helpdesk.ufl.edu>

- (352) 392-HELP - select option 2

ONLINE COURSE EVALUATION: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semesters, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR OR NETIQUETTE: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students violating proper class behavior a first time will receive a warning. A second offense by the student will lead to a report to the Dean of Students and the Dean of the Graduate School.

GETTING HELP:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADING POLICIES:

GRADE COMPOSITION:

- Online participation: 10%
- Homework assignments (3): 30% (10% each)
- Midterm (project proposal and presentation): 30%
- Final (project report and presentation): 30%

GRADING SCALE:

Letter Grade	Grade Points	Grade Percentage
A	4.0	95-100
A-	3.67	90-94
B+	3.33	87-89
B	3.0	83-86
B-	2.67	80-82
C+	2.33	77-79

C	2.0	73-76
C-	1.67	70-72
D+	1.33	67-69
D	1.0	63-66
D-	.67	60-62
E	0	< 59

For more information on UF Grading Policy, please visit:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE SCHEDULE:

CRITICAL DATES: TBD

PROVISIONAL SCHEDULE (SUBJECT TO CHANGE):

Week	Topic	Date	Notes
1	Introduction and course overview: Python, data science and project	TBD	
2	An introduction to Python Programming <ul style="list-style-type: none"> 1. History 2. Basic syntax 	TBD	
3	Tools to program <ul style="list-style-type: none"> 1. Text editors 2. Coding environment 3. JupyterLab 	TBD	
4	Python programming <ul style="list-style-type: none"> 1. Basic functions 2. Running programs and debugging 	TBD	Assignment 1 due (tentative)
5	Python programming <ul style="list-style-type: none"> 1. Libraries and packages 2. NumPy 3. Pandas 	TBD	
6	Machine Learning in Python <ul style="list-style-type: none"> 1. AI packages 2. Examples 	TBD	
7	Supervised Machine Learning in Python	TBD	
8	Mid semester presentations	TBD	

9	Unsupervised Machine Learning in Python	TBD	Assignment 2 due (tentative)
10	Deep Learning in Python	TBD	
11	Convolution neural networks and applications	TBD	
12	Recurrent neural networks and applications	TBD	
13	Game adversarial networks and applications	TBD	
14	Select topics - TBD	TBD	Assignment 3 due (tentative)
15	Final presentations of the course projects	TBD	

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Course|New for request 18843

Info

Request: GMS 6XXX Computational Skills for Neuroscience

Description of request: Computational skills are becoming more necessary for all biomedical research, including neuroscience. Computational proficiency can facilitate multiple facets of graduate student research and education including facilitating statistical analyses, analysis of large data sets, use of the high-performance computer on campus and adapting existing open-source tools for the needs of a scientific project. Programming skills particularly can automate data processing and decrease human bias in scientific projects. However, computer programming is not incorporated in the predoctoral education of all biological science or neuroscience degrees. Therefore, the purpose of this course is to take a novice student and provide them with the basic understanding of MATLAB and Python programming, gradually working through more complex exercises with relevance to neuroscience.

Submitter: Ikiah Young ilyoung@ufl.edu

Created: 4/16/2023 10:11:55 AM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Intermediate

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles.

Response:
Computational Skills for Neuroscience

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Computational Skills for Neuro

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:

Spring

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:

2024

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:

No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:

No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:

2

If variable, # min

Response:

0

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:

Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:

2

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:

We will teach basic software skills for neuroscience graduate students and how computing can enhance and accelerate neuroscience research.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
GMS 6701 & GMS 6705 & GMS 6022 & graduate level statistics course

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The purpose of this course is to prepare students to use basic computational tools on MATLAB and Python with direct relevance to neuroscience research. At the end of this course, students should be able to adapt their basic programming skills to basic tasks from literature searches to quantitative analyses of their own datasets, as well as edit and understand code done by other lab members. Students will also be exposed to basic concepts in Artificial Intelligence as they related to neuroscience.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

- 9) Presentations of mid-semester project "How I improved code from my lab"
- 10) How to do Regressions and correlations in Matlab and Python (ch. 7)
- 11) Dimensionality Reduction uses in neuroscience (ch. 8)
 - <https://www.visual-design.net/post/linear-algebra-for-ml-part2-principal-component-analysis>
 - Hands on exercise to reduce dimensionality of dataset
- 12) Intro to Artificial intelligence and Machine Learning Part 1
 - Students will do ch. 9 independently
 - lecture
- 13) Intro to Artificial intelligence and Machine Learning Part 2
 - Hands on exercises
- 14) Student presentations of datasets
- 15) Student presentations of datasets

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Grading:

Requirement	Percent Final Grade
Attendance	40%
Problem sets homework	30%
Final projects	30%

Point system used (i.e., how do course points translate into letter grades).

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Dr. Nancy Padilla-Coreano

Dr. Drew Maurer

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

• *<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>*

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.*

* *

Response:
Yes

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE SYLLABUS
NEUROSCIENCE
GMS6XXX Computational Skills for Neuroscience
(2 credit)
Spring 2023
Delivery Format: In person. Time: TBD

Instructors:

Dr. Nancy Padilla-Coreano
Office: MBI RM L1-100j
Phone: 787-598-6382
npadillacoreano@ufl.edu

Dr. Drew Maurer
Office: McKnight RM L1-100E
Phone: 352-273-5092
drewmaurer@ufl.edu

Office Hours: By Appointment

Graduate Assistant: TBD

Preferred Course Communications:

Teams

Prerequisites: Doctoral students

Purpose and Outcome:

The purpose of this course is to prepare students to use basic computational tools on MATLAB and Python with direct relevance to neuroscience research. At the end of this course, students should be able to adapt their basic programming skills to basic tasks from literature searches to quantitative analyses of their own datasets, as well as edit and understand code done by other lab members. Students will also be exposed to basic concepts in Artificial Intelligence as they related to neuroscience.

Course Overview:

Computational skills are becoming more necessary for all biomedical research, including neuroscience. Computational proficiency can facilitate multiple facets of graduate student research and education including facilitating statistical analyses, analysis of large data sets, use of the high-performance computer on campus and adapting existing open-source tools for the needs of a scientific project. Programming skills particularly can automate data processing and decrease human bias in scientific projects. However, computer programming is not incorporated in the predoctoral education of all biological science or neuroscience degrees. Therefore, the purpose of this course is to take a novice student and provide them with the basic understanding of MATLAB and Python programming, gradually working through more complex exercises with relevance to neuroscience. Students will be required to bring their own computer to every class to do the exercises.

Relation to Program Outcomes: This course fulfills the requirements for Academic Credits for graduate students in the Neuroscience program.

Course Objectives and/or Goals:

By the end of each semester, students will be able to:

- Understand the basics of MATLAB and Python
- Be able to create code to transform and visualize common datasets
- Be able to understand and implement open source code towards common datasets
- Become aware of the local computing resources at the University of Florida
- Improve awareness and general knowledge of novel Artificial Intelligence tools utilized for neuroscience
- Experience using common packages to perform machine learning to analyze data

Instructional Methods:

As programming is often “trial and error”, this class will provide both instruction and time to apply the concepts real time in class. Students are expected to come to class with their laptops prepared to work through exercises and additional supplementary problems. In the first half of each lecture the instructors will explain the concepts necessary, and in the second part of the lecture students will dive into programming exercises. Instructors will be present to explain, facilitate and help with problems that emerge as students complete their programming exercises. A small portion of the lectures will be didactic, with guest lectures offering expansion on what Artificial Intelligence could offer if they continue beyond the current course. Through the course students will workshop scripts to improve good general coding habits and reproducibility of science. In addition, at the end of the semester students will complete a data analysis project and present their projects.

Description of Course Content:

Topical Outline/Course Schedule

- 1) Discussion of Data Science and how it is used in Neuroscience.
 - Why MATLAB and Python,
 - Discussion of <https://www.jneurosci.org/content/jneuro/38/7/1601.full.pdf>
 - The elephant in the room, ChatGPT:
<https://neuraljojo.medium.com/how-i-use-chatgpt3-as-a-scientist-12832caf5048>
- 2) Preparing our environments to code
 - Downloading MATLAB (via apps), Python and JupyterLab Notebooks
 - Download a library manager (conda, etc.)
 - Hipergator resources
- 3) “Hello worlds”- basics of programming (ch.2)
 - Basics of Matlab vs Python (appendix A of book)

- Dictionary of variable types for Matlab vs Python
 - What is a function and how you use them and make them
 - Useful libraries for neuroscience
- 4) Loops, conditionals, and nested loops (Ch 3)
 - You'll learn what are loops and conditionals and how to make them
 - But also when avoiding loops is better for speed
 - <https://medium.com/analytics-vidhya/day-1-making-matlab-fun-ad850eaffbde>
 - <https://medium.com/python-pandemonium/never-write-for-loops-again-91a5a4c84baf>
 - Homework: Reduce the number of loops on assigned script
 - 5) Make your first script with data transformation and plotting (ch.2)
 - Avoiding ugly plots please!
 - <https://medium.com/analytics-vidhya/day-7-where-does-my-data-go-and-matlabs-most-useful-hidden-plotting-property-d00d9d12045e>
 - <https://medium.com/geekculture/create-beautiful-graphs-with-python-4235f50b2adb>
 - 6) Workshop scripts: learn how to use and improve someone else's code and final project explanation.
 - Students will bring code generated in their home labs and provide critical feedback on how to improve it.
 - 7) Common packages for statistical testing, t-tests and ANOVAs
 - 8) Time series and signal processing (ch.5)
 - Library for signal processing in Matlab and Python
 - Power spectrum and coherence analyses
 - 9) Presentations of mid-semester project "How I improved code from my lab"
 - 10) How to do Regressions and correlations in Matlab and Python (ch. 7)
 - 11) Dimensionality Reduction uses in neuroscience (ch. 8)
 - <https://www.visual-design.net/post/linear-algebra-for-ml-part2-principal-component-analysis>
 - Hands on exercise to reduce dimensionality of dataset
 - 12) Intro to Artificial intelligence and Machine Learning Part 1
 - Students will do ch. 9 independently
 - lecture
 - 13) Intro to Artificial intelligence and Machine Learning Part 2
 - Hands on exercises
 - 14) Student presentations of datasets
 - 15) Student presentations of datasets

Mid semester project: Improve your laboratory's base code

Pick a script that has been created by someone else in your lab, or by yourself in the past, and apply the concepts of the class to improve the readability of the code, minimize loops, lines of code and annotate code.

Final project (Datasets <http://archive.ics.uci.edu/ml/datasets.php>)

Write a well annotated script that can be batched process to do the following:

1. Run a regression on your dataset and identify the most and the least correlated variables
2. Do k-means or hierarchical clustering using the least correlated variables
3. Do k-means or hierarchical clustering using the most correlated variables
4. Write a paragraph on how correlation affects clustering and general observations on clustering and variance.

Description of Course Content:

Topical Outline/Course Schedule

This course will take place every Tuesday from 9:30am-11:30am during the Fall semester. Specific topics and readings are not provided since we have a dynamic course schedule dependent on the research article that each student selects for discussion.

Canvas usage:

Canvas will be used to submit programming exercise homework and for a discussion forum for debugging code errors. If students participate in helping others debug code they will get up to 5 extra credit points.

Course Materials and Technology:

Neural Data Science: A Primer with MATLAB and Python, Erik Lee Nysten, Pascal Wallisch (2017)

A computer

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- [UF eLearning](#)

Academic Requirements and Grading:

Assignments:

Each student is expected to present on their data analysis project during the semester and actively participate in the discussion every week. Student presenters order will be selected by the instructors. Several coding projects from the book will be submitted as problem sets.

Grading:

Requirement	Percent Final Grade
Attendance	40%

Problem sets homework	30%
Final projects	30%

Point system used (i.e., how do course points translate into letter grades).

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

More information on UF grading policy may be found at:
<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Exam Policy: No exams

Policy Related to Required Class Attendance:

Requirements for class attendance and assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>). Additional information can be found here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Academic Integrity:

Students are expected to act in accordance with the University of Florida policy on academic

integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the [Classroom](#)

[Guests of Students policy](#) in its entirety.

Support Services:

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health:

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.

- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32698, ufhealth.org/emergency-room-trauma-center.
- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- Crisis intervention is always available 24/7 from:

Alachua County Crisis Center:

(352) 264-6789

<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/.

Library Support: cms.uflib.ufl.edu/ ask various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. teachingcenter.ufl.edu/

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/

Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

On-Line Students Complaints: distance.ufl.edu/student-complaint-process

Note regarding respect for diverse ideas: At times your instructors may make provocative statements related to course content to spark discussion. This is not an endorsement of a position. We welcome and have respect for dissenting opinions. Moreover, we feel that hearing and sharing diverse ideas is an essential component of the active learning process. Please discuss with course faculty if you ever feel that your ideas are not being heard or respected.

Course|New for request 18419

Info

Request: GMS 6XXX Foundations of Healthcare Education

Description of request: New graduate course

Submitter: Jason Byrd jhbyrd@ufl.edu

Created: 3/21/2023 2:59:41 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Intermediate

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Foundations of Healthcare Education

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Foundations of Healthcare Ed

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course provides an overview of the field of medical education, including its history, principles, and current trends. Students will learn about the various stages and components of medical education, from pre-medical education to postgraduate medical education. Topics will include curriculum design and development, teaching and learning methods, assessment in medical education, accreditation and regulation, and the impact of technology and innovation on medical education..

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

None

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This course will allow for students to demonstrate their ability to design, implement and evaluate curricula in traditional and technology-enhanced learning environments

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

The goals of the course are:

1. Define and understand key terms, concepts, and theories related to medical education.
2. Describe the historical evolution and current trends in medical education.
3. Analyze the various stages and components of medical education, including pre-medical education, undergraduate medical education, and postgraduate medical education.
4. Evaluate the role of accreditation and regulatory bodies in medical education.
5. Discuss the different teaching and learning methods used in medical education, such as lectures, problem-based learning, and simulated patient encounters.
6. Compare and contrast the curriculum and assessment methods used in different medical education programs.
7. Evaluate the impact of technology and innovation on medical education.
8. Analyze the ethical and cultural considerations involved in medical education.
9. Assess the challenges and opportunities facing medical education, including diversity and

Stages of Medical Education: Overview of the different stages of medical education, including pre-medical education, undergraduate medical education, and postgraduate medical education.

4

Small group and large group discussion

5

Curriculum Design and Development: Analysis of the principles of curriculum design and development, including curriculum mapping, outcome-based education, and interprofessional education.

6

Teaching and Learning Methods: Overview of the various teaching and learning methods used in medical education, including lectures, problem-based learning, case-based learning, and simulated patient encounters.

7

Assessment in Medical Education: Analysis of the various assessment methods used in medical education, including formative and summative assessments, and the use of standardized patients and computer-based simulations.

8

Accreditation and Regulation: Discussion of the role of accreditation and regulatory bodies in medical education, including the role of the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME).

9

Project presentations

10

Technology and Innovation in Medical Education: Overview of the impact of technology and innovation on medical education, including the use of online learning platforms, virtual and augmented reality simulations, and telemedicine.

11

Ethical and Cultural Considerations: Analysis of ethical and cultural considerations in medical education, including cultural competence, diversity and inclusion, and patient-centered care.

12

Workforce Development and Patient Safety: Discussion of workforce development and patient safety in medical education, including interprofessional education, patient safety initiatives, and quality improvement.

13

Challenges and Opportunities in Medical Education: Analysis of the challenges and opportunities facing medical education, including workforce shortages, rising healthcare costs, and the changing healthcare landscape.

14

Reflection and Critical Thinking: Development of critical thinking and reflection skills, and the application of these skills to the field of medical education.

15

Final presentations of the course projects

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If

participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

There are two written summative assessments for this course and two oral presentations

Reflective report (1000 words) 20%

Project 1: Oral Presentations 20%

Project 2: Oral Presentation 20%

Review a topical area of medical education of their choice (3000 words) 40%

GRADING SCALE:

Letter Grade Grade Points Grade Percentage

A 4.0 95-100

A- 3.67 90-94

B+ 3.33 87-89

B 3.0 83-86

B- 2.67 80-82

C+ 2.33 77-79

C 2.0 73-76

C- 1.67 70-72

D+ 1.33 67-69

D 1.0 63-66

D- .67 60-62

E 0 < 59

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

To be determined

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.

Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

FOUNDATIONS OF HEALTHCARE EDUCATION

COURSE NUMBER: GMS XXXX

CREDIT HOURS: 3

SEMESTER/YEAR: TBD/TBD

CLASS LOCATION: ONLINE

CLASS MEETING TIME(S): NA (ONLINE)

INSTRUCTOR:

TBD

OFFICE HOURS: TBD

COURSE TA OR COORDINATOR: TBD

COURSE WEBSITE: TBD

COURSE COMMUNICATIONS: Students should ask questions about the course and material covered in the course on the online discussion board to ensure that questions and answers benefit all students and to generate discussions. Private questions should be sent to the instructor via e-mail.

REQUIRED OR RECOMMENDED TEXTBOOKS: There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

Recommended textbook:

- Harden, R. M., & Laidlaw, J. M. (2020). *Essential skills for a medical teacher: an introduction to teaching and learning in medicine*. Elsevier Health Sciences.
- Singh, T., Gupta, P., & Singh, D. (2020). *Principles of medical education*. Jaypee Brothers Medical Publishers.
- Swanwick, T. (2018). *Understanding medical education. Understanding Medical Education: Evidence, Theory, and Practice*, 1-6.

Journal Articles Provided in Canvas

- Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D. Teaching professionalism in medical education: a Best Evidence Medical Education (BEME) systematic review. BEME Guide No. 25. Med Teach. 2013 Jul;35(7):e1252-66. doi: 10.3109/0142159X.2013.789132. PMID: 23829342.
- Guze PA. Using Technology to Meet the Challenges of Medical Education. Trans Am Clin Climatol Assoc. 2015;126:260-70. PMID: 26330687; PMCID: PMC4530721.
- Harden RM, Lilley P, McLaughlin J. Forty years of medical education through the eyes of Medical Teacher: From chrysalis to butterfly. Med Teach. 2018 Apr;40(4):328-330. doi: 10.1080/0142159X.2018.1438593. Epub 2018 Feb 23. PMID: 29475376.
- Kouz K, Eisenbarth S, Bergholz A, Mohr S. Presentation and evaluation of the teaching concept "ENHANCE" for basic sciences in medical education. PLoS One. 2020 Sep 29;15(9):e0239928. doi: 10.1371/journal.pone.0239928. PMID: 32991616; PMCID: PMC7523967.
- Lewis KO, Cidon MJ, Seto TL, Chen H, Mahan JD. Leveraging e-learning in medical education. Curr Probl Pediatr Adolesc Health Care. 2014 Jul;44(6):150-63. doi: 10.1016/j.cpped.2014.01.004. PMID: 24981664.
- Taylor DC, Hamdy H. Adult learning theories: implications for learning and teaching in medical education: AMEE Guide No. 83. Med Teach. 2013 Nov;35(11):e1561-72. doi: 10.3109/0142159X.2013.828153. Epub 2013 Sep 4. PMID: 24004029.

MATERIALS AND SUPPLIES FEES: NA

COURSE DESCRIPTION: This 3-credit course serves as an introduction to medical education. This course provides an overview of the field of medical education, including its history, principles, and current trends. Students will learn about the various stages and components of medical education, from pre-medical education to postgraduate medical education. Topics will include curriculum design and development, teaching and learning methods, assessment in medical education, accreditation and regulation, and the impact of technology and innovation on medical education. The course will also explore ethical and cultural considerations in medical education, workforce development and patient safety, and the challenges and opportunities facing medical education today. Students will engage in interactive learning activities, such as case studies and group discussions, to enhance their understanding of the field. The course is

designed for students who are interested in pursuing a career in medical education, healthcare, or a related field.

The course will be structured around a series of lectures, reading assignments, and interactive learning activities. Assessment will be based on class participation, written assignments, and a final project. By the end of the course, students will have a solid understanding of the field of medical education and will be well-prepared to pursue further studies or a career in this exciting and rapidly-evolving field.

PREREQUISITE KNOWLEDGE AND SKILLS: None.

COURSE GOALS AND/OR OBJECTIVES: Teaching methods include lecture, online discussion, and hands-on data assessment, analysis, and presentation. The goals of the course are:

1. Define and understand key terms, concepts, and theories related to medical education.
2. Describe the historical evolution and current trends in medical education.
3. Analyze the various stages and components of medical education, including pre-medical education, undergraduate medical education, and postgraduate medical education.
4. Evaluate the role of accreditation and regulatory bodies in medical education.
5. Discuss the different teaching and learning methods used in medical education, such as lectures, problem-based learning, and simulated patient encounters.
6. Compare and contrast the curriculum and assessment methods used in different medical education programs.
7. Evaluate the impact of technology and innovation on medical education.
8. Analyze the ethical and cultural considerations involved in medical education.
9. Assess the challenges and opportunities facing medical education, including diversity and inclusion, workforce development, and patient safety.
10. Develop skills in critical thinking and reflection, and apply these skills to the field of medical education.

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE MASTER OF SCIENCE IN HEALTHCARE EDUCATION – ARTIFICIAL INTELLIGENCE: upon taking this course, students will be able to:

- Apply evidence-based educational strategies and methodologies to teach in a range of settings
- Adapt instruction based upon learner assessment
- Incorporate interprofessional and interdisciplinary teaching methods in curricular design
- Apply standards and standards-based instructional approaches to teaching
- Understand collaborative and clinical teaching models
- Recognize multiple approaches to assessing student learning outcomes
- Integrate technology into instruction
- Explain the importance of adult learning principles, theory and development
- Apply reflective practice to their own instruction
- Demonstrate the ability to design, implement and evaluate curricula in traditional and technology-enhanced learning environments
- Describe effective methods for providing learner feedback

INSTRUCTIONAL METHODS: this course is offered online. The course includes a variety of recorded lectures, journal articles, and online board discussions.

COURSE POLICIES:

ATTENDANCE POLICY: Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

QUIZ/EXAM DATES/POLICIES: All assignments are due on or before their due date, unless otherwise specified.

- Assignment must be turned in no later than 11:59 pm on the day that it is due.
- Late homework assignments will NOT be accepted, unless you have a *prior* approval from the instructor.

- No handwritten assignment. All assignments need to be submitted electronically either by email or the online system.

MAKE-UP POLICY: Students are allowed to make up work only as the result of illness or other unanticipated circumstances (for instance technology failure). In the event of such emergency, documentation will be required in conformance with university policy. Work missed for any other reason will earn a grade of zero.

COURSE TECHNOLOGY: This course is offered entirely online. If students have technology-related issues, reach out to UF help desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP - select option 2

ONLINE COURSE EVALUATION: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>. UF Policies:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic

misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR OR NETIQUETTE: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students violating proper class behavior a first time will receive a warning. A second offense by the student will lead to a report to the Dean of Students and the Dean of the Graduate School.

GETTING HELP:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADING POLICIES:

GRADE COMPOSITION:

There are two written summative assessments for this course and two oral presentations

Reflective report (1000 words) 20%
 Project 1: Oral Presentations 20%
 Project 2: Oral Presentation 20%
 Review a topical area of medical education of their choice (3000 words) 40%

GRADING SCALE:

Letter Grade	Grade Points	Grade Percentage
A	4.0	95-100
A-	3.67	90-94
B+	3.33	87-89
B	3.0	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.0	73-76
C-	1.67	70-72
D+	1.33	67-69
D	1.0	63-66
D-	.67	60-62
E	0	< 59

For more information on UF grading policy, please visit:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE SCHEDULE:

CRITICAL DATES: *TBD*

PROVISIONAL SCHEDULE (SUBJECT TO CHANGE):

Week	Topic	Date	Notes
1	Overview of Medical Education: Definition, scope, and importance of medical education, and its relationship to healthcare delivery.	TBD	
2	Historical Evolution of Medical Education: A review of the historical development of medical education, including the evolution of medical curricula, teaching methods, and assessment techniques.	TBD	
3	Stages of Medical Education: Overview of	TBD	

	the different stages of medical education, including pre-medical education, undergraduate medical education, and postgraduate medical education.		
4	Small group and large group discussion	TBD	Reflective report due (tentative)
5	Curriculum Design and Development: Analysis of the principles of curriculum design and development, including curriculum mapping, outcome-based education, and interprofessional education.	TBD	
6	Teaching and Learning Methods: Overview of the various teaching and learning methods used in medical education, including lectures, problem-based learning, case-based learning, and simulated patient encounters.	TBD	
7	Assessment in Medical Education: Analysis of the various assessment methods used in medical education, including formative and summative assessments, and the use of standardized patients and computer-based simulations.	TBD	
8	Accreditation and Regulation: Discussion of the role of accreditation and regulatory bodies in medical education, including the role of the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME).	TBD	
9	Project presentations	TBD	Project 1 Oral Presentation due (tentative)
10	Technology and Innovation in Medical Education: Overview of the impact of technology and innovation on medical education, including the use of online learning platforms, virtual and augmented reality simulations, and telemedicine.	TBD	
11	Ethical and Cultural Considerations: Analysis of ethical and cultural considerations in medical education, including cultural	TBD	

	competence, diversity and inclusion, and patient-centered care.		
12	Workforce Development and Patient Safety: Discussion of workforce development and patient safety in medical education, including interprofessional education, patient safety initiatives, and quality improvement.	TBD	
13	Challenges and Opportunities in Medical Education: Analysis of the challenges and opportunities facing medical education, including workforce shortages, rising healthcare costs, and the changing healthcare landscape.	TBD	
14	Reflection and Critical Thinking: Development of critical thinking and reflection skills, and the application of these skills to the field of medical education.	TBD	
15	Final presentations of the course projects	TBD	Project 2 Oral presentation based on the reviewed topic area Review a topical area of medical education of their choice due

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Course|New for request 18421

Info

Request: GMS 6XXX Research Design in Healthcare Education

Description of request: New graduate course

Submitter: Jason Byrd jhbyrd@ufl.edu

Created: 3/21/2023 3:36:53 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Intermediate

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Research Design in Healthcare Education

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Res Design Healthcare Ed

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course provides information on medical education research and program evaluation methodologies as well as scholarship opportunities revolving around the healthcare educational setting. The course assists students in transforming ideas and problems into researchable questions or aims, and appropriate approaches to conducting meaningful research or evaluation at the undergraduate and graduate medical education levels as well as within the healthcare setting related to education.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

N/A

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This course will provide students with the qualitative and quantitative philosophies and review explorative, experimental, observational and translational studies as they are applied to medical education studies in healthcare.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

At the completion of the course, students will be able to:

1. Articulate the purpose of educational research in the context of healthcare
2. Describe the fundamental differences between qualitative and quantitative research
3. Identify the four components to power analysis: effect size, Type I error, Type II error, and sample size
4. Describe principles of reliability and validity
5. Discuss the importance of conceptual and theoretical frameworks, and models when designing research studies or program evaluation in healthcare educational settings
6. Summarize the various educational theories that inform educational research
7. Complete a literature review to effectively summarize existing literature regarding a specific topic in healthcare education
8. List essential components when drafting different types of research question(s) or specific

aim(s)

9. Formulate a research question for the healthcare educational settings
10. Describe principles of reliability and validity
11. Create a data analysis plan based on research question/program evaluation
12. Explain Institutional Review Board approval process and Human Subjects Protection relevant in healthcare education research

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Required Textbooks and Software

- Researching Medical Education: Jennifer Cleland and Steve Durning (2015), Wiley Blackwell, ISBN 978-1-118-83920-1

Journal Articles Provided in Canvas

- Castillo-Page, L., Bodilly, S., & Bunton, S. A. (2012). AM Last Page: Understanding Qualitative and Quantitative Research Paradigms in Academic Medicine. *Academic Medicine*, 87(3), 386. <https://doi.org/10.1097/ACM.0b013e318247c660>
- Durning SJ, Hemmer P, Pangaro LN. The structure of program evaluation: an approach for evaluating a course, clerkship, or components of a residency or fellowship training program. *Teach Learn Med*. 2007;19:308–318
- Mattick, K., Johnston, J., & de la Croix, A. (2018). How to...write a good research question. *The Clinical Teacher*, 15(2), 104–108. <https://doi.org/10.1111/tct.12776>
- Chatterjee D, Corral J. How to write well-defined learning objectives. (2017). *JEMP*, XIX (4), 1-4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5944406/>
- Hanson, J. L., Balmer, D. F., & Giardino, A. P. (2011). Qualitative Research Methods for Medical Educators. *Academic Pediatrics*, 11(5), 375–386. <https://doi.org/10.1016/j.acap.2011.05.001>
- Abramson, E. L., Paul, C. R., Petershack, J., Serwint, J., Fischel, J. E., Rocha, M., Treitz, M., McPhillips, H., Lockspeiser, T., Hicks, P., Tewksbury, L., Vasquez, M., Tancredi, D. J., & Li, S.-T. T. (2018). Conducting Quantitative Medical Education Research: From Design to Dissemination. *Academic Pediatrics*, 18(2), 129–139.
- Balmer DF, Rama JA, Martimianakis MA, Stenfors-Hayes T. Using data from program evaluations for qualitative research. *J Grad Med Educ*. 2016;8(5):773-774. doi:10.4300/JGME-D-16-00540.1
- Turner TL, Balmer DF, Coverdale JH. Methodologies and study designs relevant to medical education research. *Int Rev Psychiatry*. 2013 Jun;25(3):301-10. doi: 10.3109/09540261.2013.790310. PMID: 23859093.
- Charlotte Ringsted, Brian Hodges & Albert Scherpbier (2011) 'The research compass': An introduction to research in medical education: AMEE Guide No. 56, *Medical Teacher*, 33:9, 695-709, DOI: 10.3109/0142159X.2011.595436
- Ferris HA, Collins ME (2015). Research and evaluation in medical education. *IJHE*, 4(3), 104-111. doi:10.5430/ijhe.v4n3p104
- Balmer D., Anderson H, West C. (2023). Program evaluation in health professions education: An innovative approach guided by principles. *Academic Medicine*, Vol. 98, No. 2 doi: 10.1097/ACM.0000000000005009
- Dine, C. Jessica MD, MSHP; Shea, Judy A. PhD; Kogan, Jennifer R. MD Generating Good Research Questions in Health Professions Education, *Academic Medicine*: December 2016 - Volume 91 - Issue 12 - p e8 doi: 10.1097/ACM.0000000000001413
- Sullivan G. M. (2012). Writing education studies for publication. *Journal of graduate medical education*, 4(2), 133–137. <https://doi.org/10.4300/JGME-D-12-00044.1>

Webinars

- Disseminating Your Educational Innovations Through Scholarship (Jan 2023) https://aamc.elevate.commpartners.com/products/disseminating-your-educational-innovations-through-scholarship-january-27?force_login=1 Create a AAMC account and login

Recommended

- Statistics Toolkit: Rafael Perera, Carl Heneghan, Douglas Badenoch (2008), Blackwell

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Week Topic

1

Introduction and course overview: what is medical education research in healthcare and its purpose(s), different venues, importance of rigor and systematic research or evaluation,

2

Quantitative vs Qualitative, Program Evaluation, Literature Review- look for educational gap, Guest Speaker: Medical Librarian, Small group Activity-Jeopardy!

3

What is your gap?, Research Question Formulation, Consider Power Analysis?, Specific Aims; Learning Objectives, Question/Aims Drives Methods, Research, Program Eval, Qual, Quant, Quiz

1: 25 points

4

Overview Exploratory, Experimental, Observational, Translational Studies,
5 Overview: Conceptual Frameworks, Theoretical Frameworks, Models...Alphabet Soup, Constructivism. Sociomaterial, Activity theory.

6-7 More on theories relevant to the healthcare education setting, Social cognitive, Participatory practices, Self-regulated learning, instructional design, Cognitive-load, Deliberate practice, Quiz

2- 25 points

8

Put it together: Your work week, Topic (lit review) – gap, Research question, specific aims, objectives, Underlying educational theory, conceptual framework, Methods: design; qual or quant; mixed; Program Eval

9

Let's Talk Data, What type of data collecting?, Data collection tools, Reliability and Validity, How do you find the data? How can AI assist?, Data Analysis Plan, Tips-meeting with statistician, Best practices for collecting and storing data; databases, Large Data sets

10

IRB, What is the IRB; IRBs at UF; IRB Approval and Changes, Human Subjects Research, Is Medical Education Research Human Subjects? Quality Improvement?, Informed Consent, Ethical Considerations with students and trainees, Activity: IRB Scavenger Hunt, Quiz 3-25

points

11

Qualitative Methods, Program Evaluation

12

Disseminating Your Work, Small group activity: make a plan

13

Your complete Plan Work Week

14 Final presentations of the course projects

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

GRADE COMPOSITION:

- Online participation, small group activities: 15%
- Quizzes 25%
- Lit Review 10%
- Midterm (research proposal and presentation): 20%
- Final (research project proposal and presentation): 30%

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Quizzes (4) 25 each	100	25%
Midterm Project	50	20%
Final Project	50	30%
Lit Review Paper	25	10%

100%

Grading Policy

The following is given as an example only.

Percent	Grade	Grade Points
95 - 100.0	A	4.00
90-94	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
67-69	D+	1.33
63-66	D	1.00
60-62	D-	0.67
<59	F	0.00

More information on UF grading policy may be found at:

UF Graduate Catalog

Grades and Grading Policies

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

To be determined

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- Requirements for class attendance and make-up exams, assignments, and other work in this course are

consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:
Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy. A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:
Yes

Research Design in Healthcare Education

Prefix + Number Section:

Class Periods: Asynchronous

Location: Online

Academic Term: TBD

Instructor:

Name: TBD

Email Address: TBD

Office Phone Number: TBD

Office Hours: TBD

Course Description

This course provides information on medical education research and program evaluation methodologies as well as scholarship opportunities revolving around the healthcare educational setting. The course assists students in transforming ideas and problems into researchable questions or aims, and appropriate approaches to conducting meaningful research or evaluation at the undergraduate and graduate medical education levels as well as within the healthcare setting (i.e., clinical learning environment) related to education. Students will also review the importance of and the various conceptual and theoretical frameworks and models core to educational research. Students will also learn qualitative and quantitative philosophies and review explorative, experimental, observational and translational studies as they are applied to medical education studies in healthcare.

Course Pre-Requisites / Co-Requisites

None.

Course Goal:

To familiarize students with

Objectives

At the completion of the course, students will be able to:

1. Articulate the purpose of educational research in the context of healthcare
2. Describe the fundamental differences between qualitative and quantitative research
3. Identify the four components to power analysis: effect size, Type I error, Type II error, and sample size
4. Describe principles of reliability and validity
5. Discuss the importance of conceptual and theoretical frameworks, and models when designing research studies or program evaluation in healthcare educational settings
6. Summarize the various educational theories that inform educational research
7. Complete a literature review to effectively summarize existing literature regarding a specific topic in healthcare education
8. List essential components when drafting different types of research question(s) or specific aim(s)
9. Formulate a research question for the healthcare educational settings
10. Describe principles of reliability and validity
11. Create a data analysis plan based on research question/program evaluation
12. Explain Institutional Review Board approval process and Human Subjects Protection relevant in healthcare education research

Instructional Methods

- Pre-reading assignments (Flipped Classroom)
- Small group activities
- Project-based work (2)
- Quizzes for knowledge acquisition

Materials and Supply Fees

N/A

Required Textbooks and Software

- Researching Medical Education: Jennifer Cleland and Steve Durning (2015), Wiley Blackwell, ISBN 978-1-118-83920-1

Journal Articles Provided in Canvas

- Castillo-Page, L., Bodilly, S., & Bunton, S. A. (2012). AM Last Page: Understanding Qualitative and Quantitative Research Paradigms in Academic Medicine. *Academic Medicine*, 87(3), 386. <https://doi.org/10.1097/ACM.0b013e318247c660>
- Durning SJ, Hemmer P, Pangaro LN. The structure of program evaluation: an approach for evaluating a course, clerkship, or components of a residency or fellowship training program. *Teach Learn Med*. 2007;19:308–318
- Mattick, K., Johnston, J., & de la Croix, A. (2018). How to...write a good research question. *The Clinical Teacher*, 15(2), 104–108. <https://doi.org/10.1111/tct.12776>
- Chatterjee D, Corral J. How to write well-defined learning objectives. (2017). *JEMP*, XIX (4), 1-4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5944406/>
- Hanson, J. L., Balmer, D. F., & Giardino, A. P. (2011). Qualitative Research Methods for Medical Educators. *Academic Pediatrics*, 11(5), 375–386. <https://doi.org/10.1016/j.acap.2011.05.001>
- Abramson, E. L., Paul, C. R., Petershach, J., Serwint, J., Fischel, J. E., Rocha, M., Treitz, M., McPhillips, H., Lockspeiser, T., Hicks, P., Tewksbury, L., Vasquez, M., Tancredi, D. J., & Li, S.-T. T. (2018). Conducting Quantitative Medical Education Research: From Design to Dissemination. *Academic Pediatrics*, 18(2), 129–139.
- Balmer DF, Rama JA, Martimianakis MA, Stenfors-Hayes T. Using data from program evaluations for qualitative research. *J Grad Med Educ*. 2016;8(5):773-774. doi:10.4300/JGME-D-16-00540.1
- Turner TL, Balmer DF, Coverdale JH. Methodologies and study designs relevant to medical education research. *Int Rev Psychiatry*. 2013 Jun;25(3):301-10. doi: 10.3109/09540261.2013.790310. PMID: 23859093.
- Charlotte Ringsted, Brian Hodges & Albert Scherpbier (2011) ‘The research compass’: An introduction to research in medical education: AMEE Guide No. 56, *Medical Teacher*, 33:9, 695-709, DOI: 10.3109/0142159X.2011.595436
- Ferris HA, Collins ME (2015). Research and evaluation in medical education. *IJHE*, 4(3), 104-111. doi:10.5430/ijhe.v4n3p104
- Balmer D., Anderson H, West C. (2023). Program evaluation in health professions education: An innovative approach guided by principles. *Academic Medicine*, Vol. 98, No. 2 doi: 10.1097/ACM.0000000000005009
- Dine, C. Jessica MD, MSHP; Shea, Judy A. PhD; Kogan, Jennifer R. MD Generating Good Research Questions in Health Professions Education, *Academic Medicine*: December 2016 - Volume 91 - Issue 12 - p e8 doi: 10.1097/ACM.0000000000001413
- Sullivan G. M. (2012). Writing education studies for publication. *Journal of graduate medical education*, 4(2), 133–137. <https://doi.org/10.4300/JGME-D-12-00044.1>

Webinars

- Disseminating Your Educational Innovations Through Scholarship (Jan 2023) https://aamc.elevate.commpartners.com/products/disseminating-your-educational-innovations-through-scholarship-january-27?force_login=1 Create a AAMC account and login

Recommended

- Statistics Toolkit: Rafael Perera, Carl Heneghan, Douglas Badenoch (2008), Blackwell Publishing, BMJI Books, ISBN978-1-4-51-6142-8

Quiz/Exam Dates/Policies: All assignments are due on or before their due date, unless otherwise specified.

- Assignment must be turned in no later than 11:59 pm on the day that it is due.
- Late homework assignments will NOT be accepted, unless you have a **prior** approval from the instructor.
- No handwritten assignments. All assignments are to be submitted electronically via the online system.

Make-up Policy: Students are allowed to make up work only as the result of illness or other unanticipated circumstances. In the event of such emergency, documentation will be required in conformance with university policy. Work missed for any other reason will earn a grade of zero.

Week	Topic	Date	Notes
1	Introduction and course overview: what is medical education research in healthcare and its purpose(s), different venues, importance of rigor and systematic research or evaluation,	TBD	<ul style="list-style-type: none"> Chapter 2; Article: Charlotte Ringsted, Brian Hodges & Albert Scherpbier pages 1-7 Concept of FINER (feasible, interesting, novel, ethical, relevant) educational research question
2	<ol style="list-style-type: none"> Quantitative vs Qualitative Program Evaluation Literature Review- look for educational gap Guest Speaker: Medical Librarian Small group Activity-Jeopardy!	TBD	<ul style="list-style-type: none"> Chapter's 1,3; Articles: Durning SJ, Hemmer P, Pangaro LN. Castillo-Page, L., Bodilly, S., & Bunton, S. A Kirkpatrick Model
3	<ol style="list-style-type: none"> What is your gap? Research Question Formulation <ul style="list-style-type: none"> Activity Consider Power Analysis? Specific Aims; Learning Objectives Question/Aims Drives Methods <ul style="list-style-type: none"> Research, Program Eval, Qual, Quant Quiz 1: 25 points	TBD	<ul style="list-style-type: none"> Chapter 4 Articles: Mattick, K., Johnston, J., & de la Croix, A. Dine C, Shea J, Kogan J. Chapter 5 Article: Chatterjee, Corral.
4	<ol style="list-style-type: none"> Overview Exploratory, Experimental, Observational, Translational Studies 	TBD	<ul style="list-style-type: none"> Article: Charlotte Ringsted, Brian Hodges & Albert Scherpbier pages 7-24 Turner TL, Balmer DF, Coverdale JH.
5	<ol style="list-style-type: none"> Overview: Conceptual Frameworks, Theoretical Frameworks, Models...Alphabet Soup Constructivism. Sociomaterial, Activity theory 	TBD	<ul style="list-style-type: none"> KeyLime Podcast: https://keylimepodcast.libsyn.com/ Schlegel E., Fornari A., Zucker School of Medicine Distinction between theory, theoretical and conceptual framework Chapters 6,7,9
6-7	More on theories relevant to the healthcare education setting <ol style="list-style-type: none"> Social cognitive, Participatory practices, Self-regulated learning, instructional design, Cognitive-load, Deliberate practice Quiz 2- 25 points	TBD	<ul style="list-style-type: none"> Chapters 10, 11,14, 17, 18, 19
8	Put it together: Your work week	TBD	Assignment 1 due

	<ul style="list-style-type: none"> • Topic (lit review) – gap • Research question, specific aims, objectives • Underlying educational theory, conceptual framework • Methods: design; qual or quant; mixed; Program Eval 		<ul style="list-style-type: none"> • FINER (feasible, interesting, novel, ethical, relevant) educational research question
9	<p>Let's Talk Data</p> <ol style="list-style-type: none"> 1. What type of data collecting? 2. Data collection tools 3. Reliability and Validity 4. How do you find the data? How can AI assist? 5. Data Analysis Plan 6. Tips-meeting with statistician 7. Best practices for collecting and storing data; databases 8. Large Data sets 	TBD	<ul style="list-style-type: none"> • Guest Speakers • Pre-recorded didactics
10	<p>IRB</p> <ul style="list-style-type: none"> • What is the IRB; IRBs at UF; IRB Approval and Changes • Human Subjects Research • Is Medical Education Research Human Subjects? Quality Improvement? • Informed Consent • Ethical Considerations with students and trainees <p>Activity: IRB Scavenger Hunt Quiz 3-25 points</p>	TBD	<ul style="list-style-type: none"> • Assigned videos • Assigned websites • Guest speakers
11	<p>Qualitative Methods Program Evaluation</p>	TBD	<ul style="list-style-type: none"> • Articles: Hanson, J. L., Balmer, D. F., & Giardino, A. P. (2011); Abramson, E. L., et al.; Balmer DF, Rama JA, Martimianakis MA, Stenfors-Hayes T. • Pre-recorded Didactic (2)
12	<p>Disseminating Your Work Small group activity: make a plan</p>	TBD	<ul style="list-style-type: none"> • AAMC Webinar • Article: Sullivan G. M. (2012)
13	<p>Your complete Plan Work Week</p>	TBD	Assignment 2 due (tentative)
14	<p>Final presentations of the course projects</p>	TBD	Oral Presentations

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Attendance Policy, Class Expectations, and Make-Up Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Course Technology: This course is offered entirely online via Canvas. If students have technology-related issues, reach out to UF help desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP - select option 2

Online Course Evaluation: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semesters, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

UF Policies:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

Class Demeanor or Netiquette: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students violating proper class behavior a first time will receive a warning. A second offense by the student will lead to a report to the Dean of Students and the Dean of the Graduate School.

Getting Help:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADE COMPOSITION:

- Online participation, small group activities: 15%
Quizzes 25%
Lit Review 10%
- Midterm (research proposal and presentation): 20%
- Final (research project proposal and presentation): 30%

Evaluation of Grades

<i>Assignment</i>	<i>Total Points</i>	<i>Percentage of Final Grade</i>
Quizzes (4) 25 each	100	25%
Midterm Project	50	20%
Final Project	50	30%
Lit Review Paper	25	10%
		100%

Grading Policy

The following is given as an example only.

<i>Percent</i>	<i>Grade</i>	<i>Grade Points</i>
95 - 100.0	A	4.00
90-94	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
67-69	D+	1.33
63-66	D	1.00
60-62	D-	0.67
<59	F	0.00

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

[E-learning technical support](#), 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

[Career Resource Center](#), Reitz Union, 392-1601. Career assistance and counseling.

[Library Support](#), Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#), Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

[Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

[Student Complaints Campus](#)

[On-Line Students Complaints](#)

Course|New for request 18417

Info

Request: GMS 7XXX Practicum in Learning Analytics and Artificial Intelligence
Description of request: New graduate course in Learning Analytics and Artificial Intelligence
Submitter: Jason Byrd jhbyrd@ufl.edu
Created: 3/21/2023 2:36:52 PM
Form version: 2

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
GMS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
7

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Advanced

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:

PRACTICUM IN LEARNING ANALYTICS AND ARTIFICIAL INTELLIGENCE

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:

Practicum Learning Analytics

Degree Type

Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:

Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course will serve as a culminating experience for learners. Learners will apply knowledge and skills learned during coursework to design and implement scholarly projects using artificial intelligence / machine learning methods. The final project will consist of a publication ready manuscript.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course. Courses level 3000 and above must have a prerequisite. Please verify that any prerequisite courses listed are active courses.

Response:
Healthcare Education, Research Design in Healthcare Education GMS XXX - Currently seeking approval
AI for Healthcare Education I GMS XXX - Currently seeking approval

AI for Healthcare Education II GMS XXX - Currently seeking approval

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The purpose of the practicum is to provide an opportunity for the learners to apply the teaching, AI, and assessment skills acquired throughout the curriculum to a practical problem in healthcare learning analytics. The practicum will also allow the learners to integrate the various concepts covered in the program as they continue their careers of healthcare educators. Thus, the practicum is to be taken during the final semester.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

The objective of this course is to provide a semester-long hands-on research project where the learner will apply the skills acquired in the previous courses to a healthcare education question of interest, which will be identified with the instructor. This will lead to a journal-ready paper and a presentation of the work.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

- Python Machine Learning: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2. S. Raschka and V. Mirjalili. Ed. Packt Publishing, 3rd edition, 2019. ISBN-13: 978-1789955750
- Deep Learning with Python. F. Chollet. Ed. Manning, 2nd edition, 2021. ISBN-13: 978-1617296864
- Learning from Data. YS Abu-Mostafa et al. Ed. AMLBook, 2012. ISBN-13: 978-1600490064
- Deep Learning. I. Goodfellow et al. Ed. MIT Press, 2016. ISBN-13: 978-0262035613
- Mathematics for Machine Learning. MP Deisenroth. Ed. Cambridge University Press, 1st edition, 2020. ISBN-13: 978-1108455145
- Artificial Intelligence: A Modern Approach. S Russell and P. Norvig. Ed. Pearson, 4th edition, 2020. ISBN-13: 978-0134610993

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

There are no scheduled weekly topics as this is a practicum.

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Letter Grade	Grade Points	Grade Percentage
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A	4.0	95-100
---	-----	--------

A-	3.67	90-94
----	------	-------

B+	3.33	87-89
----	------	-------

B	3.0	83-86
---	-----	-------

B-	2.67	80-82
----	------	-------

C+	2.33	77-79
----	------	-------

C	2.0	73-76
---	-----	-------

C-	1.67	70-72
----	------	-------

D+	1.33	67-69
----	------	-------

D	1.0	63-66
---	-----	-------

D-	.67	60-62
----	-----	-------

E	0	< 59
---	---	------

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

FRANÇOIS MODAVE, PHD

Dept of Anesthesiology, Medical Science Building M507

fmodave@anest.ufl.edu

352-273-8952

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

• *<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>*

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.ua.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at*

results/"><https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

PRACTICUM IN LEARNING ANALYTICS AND ARTIFICIAL INTELLIGENCE

COURSE NUMBER: GMS XXXX

CREDIT HOURS: 3

SEMESTER/YEAR: TBD/TBD

CLASS LOCATION: ONLINE

CLASS MEETING TIME(S): NA (ONLINE)

INSTRUCTOR:

FRANÇOIS MODAVE, PHD
Dept of Anesthesiology, Medical Science Building M507
fmodave@anest.ufl.edu
352-273-8952

OFFICE HOURS: *TBD*

COURSE TA OR COORDINATOR: *TBD*

COURSE WEBSITE: *TBD*

COURSE COMMUNICATIONS: Students should ask questions about the course and material covered in the course on the online discussion board to ensure that questions and answers benefit all students and to generate discussions. Private questions should be sent to the instructor via e-mail.

REQUIRED OR RECOMMENDED TEXTBOOKS: There is no required textbook for this course. The instructor will provide materials as needed. The following books are recommended reading:

- *Python Machine Learning: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2.* S. Raschka and V. Mirjalili. Ed. Packt Publishing, 3rd edition, 2019. ISBN-13: 978-1789955750
- *Deep Learning with Python.* F. Chollet. Ed. Manning, 2nd edition, 2021. ISBN-13: 978-1617296864

- *Learning from Data*. YS Abu-Mostafa et al. Ed. AMLBook, 2012. ISBN-13: 978-1600490064
- *Deep Learning*. I. Goodfellow et al. Ed. MIT Press, 2016. ISBN-13: 978-0262035613
- *Mathematics for Machine Learning*. MP Deisenroth. Ed. Cambridge University Press, 1st edition, 2020. ISBN-13: 978-1108455145
- *Artificial Intelligence: A Modern Approach*. S Russell and P. Norvig. Ed. Pearson, 4th edition, 2020. ISBN-13: 978-0134610993

MATERIALS AND SUPPLIES FEES: NA

COURSE DESCRIPTION: This course will serve as a culminating experience for learners. Learners will apply knowledge and skills learned during coursework to design and implement scholarly projects using artificial intelligence / machine learning methods. The final project will consist of a publication ready manuscript.

PREREQUISITE KNOWLEDGE AND SKILLS: this course requires having passed Introduction to Healthcare Education, Research Design in Healthcare Education, and AI for Healthcare Education I and II.

COURSE GOALS AND/OR OBJECTIVES (REQUIRED): the objective of this course is to provide a semester-long hands-on research project where the learner will apply the skills acquired in the previous courses to a healthcare education question of interest, which will be identified with the instructor. This will lead to a journal-ready paper and a presentation of the work.

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE MASTER OF SCIENCE IN HEALTHCARE EDUCATION – ARTIFICIAL INTELLIGENCE: upon taking this course, students will be able to:

1. Devise a scientific question pertaining to healthcare and/or healthcare education data
2. Build a study protocol to analyze the data in order to answer the question
3. Direct the study itself
4. Analyze the findings critically
5. Present the findings

INSTRUCTIONAL METHODS: this course will be delivered online and will consist online discussions, paper discussions, and development and completion of a project under the guidance of the instructor.

ATTENDANCE POLICY: Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

QUIZ/EXAM DATES/POLICIES: All assignments are due on or before their due date, unless otherwise specified.

- Assignment must be turned in no later than 11:59 pm on the day that it is due.
- Late homework assignments will NOT be accepted, unless you have a *prior* approval from the instructor.
- No handwritten assignment. All assignments need to be submitted electronically either by email or the online system.

MAKE-UP POLICY: Students are allowed to make up work only as the result of illness or other unanticipated circumstances (for instance technology failure). In the event of such emergency, documentation will be required in conformance with university policy. Work missed for any other reason will earn a grade of zero.

COURSE TECHNOLOGY: This course is offered entirely online. If students have technology-related issues, reach out to UF help desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP - select option 2

ONLINE COURSE EVALUATION: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semesters, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR OR NETIQUETTE: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students violating proper class behavior a first time will receive a warning. A second offense by the student will lead to a report to the Dean of Students and the Dean of the Graduate School.

GETTING HELP:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues **MUST** be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You **MUST** e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADING POLICIES:

GRADE COMPOSITION:

- Online participation: 10%
- Homework assignments (3): 30% (10% each)
- Midterm (project proposal and presentation): 30%
- Final (project report and presentation): 30%

GRADING SCALE:

Letter Grade	Grade Points	Grade Percentage
A	4.0	95-100
A-	3.67	90-94
B+	3.33	87-89
B	3.0	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.0	73-76
C-	1.67	70-72
D+	1.33	67-69
D	1.0	63-66
D-	.67	60-62
E	0	< 59

COURSE SCHEDULE:

CRITICAL DATES: TBD

SCHEDULE: NA

Disclaimer: *[Include a statement that this syllabus is subject to change as the need arises.]* This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Course|New for request 18403

Info

Request: MAR 6XXX Business to Business Marketing

Description of request: The course examines the link between business-to-business (B2B) marketing decisions, strategy, organizational buying behavior, and selling. B2B markets are more challenging than consumer markets and demand specific skills from marketers. The buyers in B2B markets often deal with complex products, have product specialty skills, are more knowledgeable (compared with B2C buyers), and are more demanding of their suppliers. The course will introduce students to the subtleties, nuances, and opportunities of B2B marketing.

Submitter: Shawn Lee shawn.lee@warrington.ufl.edu

Created: 11/15/2021 10:54:39 AM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

MAR

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Intermediate

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate

- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Business to Business Marketing

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Business to Business

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Off-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2023

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
4

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
The course examines the link between business-to-business (B2B) marketing decisions, strategy, organizational buying behavior, and selling. B2B markets are more challenging than consumer markets and demand specific skills from marketers. The buyers in B2B markets often deal with complex products, have product specialty skills, are more knowledgeable (compared with B2C buyers), and are more demanding of their suppliers.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
MAR 5805

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This is an advanced required marketing course in the South Florida MBA program.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

Placing B2B in a strategic marketing context (e.g., How organizations buy)
Evaluating marketing opportunities (e.g., Segmentation, targeting, and positioning; market entry)
Formulating the marketing mix (e.g., Product strategy, pricing, managing channels, customer relationships, and promotion management)
Understand the evolution of selling models that complement the marketing concept
Identify product selling strategies and tactics that add value to the selling organization
Analyze practitioner-related B2B case studies in marketing and sales
Read an article or case and provide meaning concerning the critical implications, issues, or questions asked
Communicate your thinking effectively in a class discussion
Write and present a persuasive response to a question about the article or case

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

A 4.00 94% or above
A- 3.67 90.0 – 94%
B+ 3.33 87.0 – 89.9%
B 3.00 83.0 – 86.9%
B- 2.67 80.0 – 82.9%
C+ 2.33 77.0 – 79.9%
C 2.00 73.0 – 76.9%
C- 1.67 70.0 – 72.9%
D 1.00 60.0 – 69.9%
E 0.00 Less than 60.0%

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Michael Carrillo

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:
Yes

B2B Marketing

MAR6930 Sections: 22776 & 22777

Class Periods: South Florida MBA**Location:** Miramar, Florida**Academic Term:** Fall 2023**Instructor:**

Dr. Michael Carrillo

michael.carrillo@ufl.edu

Office #: 352-273-4958

Office Hours: By Appointment Via Email

Course Description

The course examines the link between business-to-business (B2B) marketing decisions, strategy, organizational buying behavior, and selling. B2B markets are more challenging than consumer markets and demand specific skills from marketers. The buyers in B2B markets often deal with complex products, have product specialty skills, are more knowledgeable (compared with B2C buyers), and are more demanding of their suppliers. The course will introduce students to the subtleties, nuances, and opportunities of B2B marketing.

Purpose of the Course

The primary purpose of the course is to expose business managers to B2B sales and marketing challenges and opportunities through curated topics and a case-based approach. As a foundation, the program includes intermixed lectures (i.e., a short survey) in B2B marketing and sales.

The course has three major themes, (1) the business market environment, (2) evaluating market opportunities, and (3) formulating a marketing mix. Additionally, the course will include frameworks for B2B sales effectiveness and marketing plans.

Course Objectives

- Placing B2B in a strategic marketing context (e.g., How organizations buy)
- Evaluating marketing opportunities (e.g., Segmentation, targeting, and positioning; market entry)
- Formulating the marketing mix (e.g., Product strategy, pricing, managing channels, customer relationships, and promotion management)
- Understand the evolution of selling models that complement the marketing concept
 - Identify product selling strategies and tactics that add value to the selling organization
- Analyze practitioner-related B2B case studies in marketing and sales
 - Read an article or case and provide meaning concerning the critical implications, issues, or questions asked
 - Communicate your thinking effectively in a class discussion
 - Write and present a persuasive response to a question about the article or case

Course Schedule

The Course Introduction module in Canvas holds the latest detailed schedule.

Date	Day	Hour	Chapter	Topic
23-Jul	Sun	8:30 - 9:30 AM	N/A	Course Overview, Introductions, and Group Project
		9:30 - 10:30 AM	1	Introduction to B2B Marketing
		10:30 - 11:30 AM	2	How Organizations Buy
		11:30 - 12:30 AM	3	Strategic Planning for Global Business Markets
19-Aug	Sat	2:00 - 3:00 PM	4	Ethical Considerations for B2B Marketers
		3:00 - 4:00 PM	N/A	Team Presentations: Articles 1 & 2
		4:00 - 5:00 PM	N/A	Team Presentations: Articles 3 & 4
		5:00 - 6:00 PM	5	B2B Market Research
20-Aug	Sun	2:00 - 3:00 PM	6	Ethical Considerations for B2B Marketers
		3:00 - 4:00 PM	N/A	Team Presentations: Articles 5 & 6
		4:00 - 5:00 PM	N/A	Team Presentations: Articles 7 & 8
		5:00 - 5:45 PM	7	Segmenting, Targeting & Positioning
09-Sep	Sat	8:30 - 9:30 AM	N/A	Sales Effectiveness: B2B Sales Strategy
		9:30 - 10:30 AM	N/A	Case #5 Presentation
		10:30 - 11:30 AM	N/A	Case #6 Presentation
		11:30 - 12:30 AM	N/A	Midterm Exam (Chapters 1-7; Articles)
10-Sep	Sun	8:30 - 9:30 AM	N/A	Minespider Case: Blockchain in the Supply Chain
		9:30 - 10:30 AM	N/A	Case #7 Presentation
		10:30 - 11:30 AM	N/A	Case #8 Presentation
		11:30 - 12:30 AM	N/A	Guest Speaker: B2B Field Marketing
30-Sep	Sat	2:00 - 3:00 PM	N/A	B2B Marketing Plans
		3:00 - 4:00 PM	N/A	Case Presentation #1
		4:00 - 5:00 PM	N/A	Case Presentation #2
		5:00 - 6:00 PM	10	Pricing
01-Oct	Sun	2:00 - 3:00 PM	11	Supply Chain Management
		3:00 - 4:00 PM	N/A	Case Presentation #3
		4:00 - 5:00 PM	N/A	Case Presentation #4
		5:00 - 5:45 PM	15	Sales Promotions & Trade Events
21-Oct	Final (Cases 1-8 & Chapters 10, 11, and 15)			

Required Packets, Recommended Textbooks, and Other Items

The Harvard Business School Case link in Canvas includes all the B2B sales and marketing Harvard Business Cases, and Harvard curated journal articles discussed in class. Students will also need a laptop computer.

Required Text:

Business to Business Marketing Management (4th edition), Alan Zimmerman and Jim Blythe
ISBN-10: 036775794X

[Amazon Link](#)

Grading Policy

Grade	GPA	Score
A	4.00	94% or above
A-	3.67	90.0 – 94%
B+	3.33	87.0 – 89.9%
B	3.00	83.0 – 86.9%
B-	2.67	80.0 – 82.9%
C+	2.33	77.0 – 79.9%
C	2.00	73.0 – 76.9%
C-	1.67	70.0 – 72.9%
D	1.00	60.0 – 69.9%
E	0.00	Less than 60.0%

*Please note – there is no extra credit

The grading scale will be as follows, based on the points attainable. The Professor reserves the right to adjust the grading scale (i.e., linear adjustment) to obtain a proper performance stratification. No extra credit points are available for this course. You can find more information regarding the graduate grading policy at <http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Evaluation of Grades

Activity	Total Points	% of Final Grade
Group Presentation 1 (Article)	15	15%
Group Presentation 2 (Case)	30	30%
Midterm Exam (Articles 1-8)	25	25%
Final Exam (Cases 1-8)	25	25%
Class Participation	5	5%
Total	100	100%

Group Presentations (Total = 45%)

The pre-assigned teams will provide meaning for the critical implications, issues, or questions asked in the case. The Canvas module contains each assignment's schedule, questions, and grading rubric. Any team can opt to have one or more students deliver a presentation. Within Canvas, the Professor will enable Turnitin with unlimited submission opportunities. Please check your work with Turnitin before your team's final submission deadline. Plagiarism violation(s) will lead to a zero on the team assignment. No late assignments are accepted. At the end of the course, students will turn in a Qualtrics group evaluation form. Those students identified by the team who needed to contribute to

their team projects adequately will receive lower case grades (e.g., up to a 30% reduction of their team's grade).

- 1) *Group Presentation 1 (Harvard Article; 15%)*: Each team will have one article for presentation. The activity requires the team to review a paper, develop a short presentation to address several questions (e.g., takeaways and managerial implications), and deliver a presentation (less than 20 minutes) to the class. The presentation deliverable (i.e., PPT) will be due in Canvas on Friday before the weekend session. A short class discussion will follow the group presentation. I will post the team's presentation on Canvas after the weekend.
- 2) *Group Presentation 2 (Harvard Case; 30%)*: Each team will be assigned one case for presentation (and write-up). The activity requires the team to analyze a given case, develop a presentation addressing posted questions (reference Canvas Case Questions), and deliver a presentation (~30-40 minutes) to the class. The case presentation must address each case question. Each team must clearly state and respond to a given question on a PowerPoint slide (the instructor will not analyze whether a team has responded to a case question). The presentation deliverable (i.e., PPT) will be due in Canvas on Friday before the weekend session. A short class discussion will follow the group presentation. I will post the team's presentation on Canvas after the weekend.

Mid-term Exam (25%)

The Professor will administer the Midterm Exam midway through the course. You will have one hour to complete an open-notes multiple-choice exam on the eight Harvard articles presented and covered text chapters. Students may wish to work in their groups to prepare short summaries of the Harvard articles discussed in class.

Final Exam (25%)

The Professor will administer the Final Exam on the last weekend of the course. You will have two hours (i.e., the final session) to complete an open-notes multiple-choice exam on the eight cases and the text chapters discussed in class. Students may wish to work in their groups to prepare short summaries of the Harvard cases discussed in class.

Attendance & Participation (5%)

This course requires your attendance and active participation to perform well. Student participation in the case presentations is mandatory (i.e., the Professor will take attendance via Qualtrics case feedback surveys). Late feedback on case presentations is not accepted (please reference the due dates in Canvas). Classroom disruptions (e.g., talking with friends, using a cell phone, sleeping, etc.) will impact the student's participation grade, and the Professor may ask an offending student(s) to leave the classroom. Electronic devices are welcome (encouraged) in class to support learning. Please be mindful that they do not serve as a distraction to you or those around you.

Make-up Policy

Make-up quizzes and exams are available only if a genuine emergency is work-related, medical, or personal. The Professor administers the exams and quizzes in class (not online). However, as much as possible, you should discuss such issues/concerns that will prohibit you from completing an exam or quiz in advance with me. If you have not made arrangements ahead of time and you miss a quiz or Exam, you will receive an automatic zero on the assignment. In some instances, I will require documentary proof establishing the nature of your emergency.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies and are found in the online catalog at <http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Additional Information and Resources

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. Students must share their accommodation letters with their instructor and discuss their access needs as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://gatorevals.aa.ufl.edu/>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are available. Summary results of these assessments are available to students at <https://gatorevals.aa.ufl.edu/>.

University Honesty Policy

The Honor Pledge binds UF students: "We, the University of Florida community members, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. The following pledge is required or implied on all work submitted for credit by students at the University of Florida: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies the number of behaviors that violate this code and the possible sanctions. Furthermore, you must report any condition that facilitates academic misconduct to the appropriate personnel. Please consult with the instructor in this class if you have any questions or concerns.

Software Use

All university faculty, staff, and students must obey software use laws and legal agreements. Failure to do so can lead to monetary damages and criminal penalties for the violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the University of Florida community members, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

Federal laws protect your privacy regarding grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Getting Help

For technical difficulties with E-learning in Canvas, please get in touch with one of the following UF Help Desk resources at learning-support@ufl.edu (352) 392-HELP (select option 2) <https://lss.at.ufl.edu/help.shtml>. Any requests for make-ups due to technical issues MUST include the ticket number received from LSS and the timestamp. The ticket number will document the time and date of the problem. You MUST email your instructor within 24 hours of the technical difficulty to request a make-up.

Illness Policy

If you are absent from classes or examinations because of illness, you should email the Professor before the class. You should contact your college to drop a course for medical reasons by the deadline. After the college petition deadline, you can petition the University Committee on Student Petitions to drop a course for medical reasons. The Student Health Care Center maintains the University's policy regarding medical excuses from classes.

Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal, educational use, (2) in connection with a complaint to the University, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture **does not** include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving student participation solely, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Viewpoint Diversity Act

Postsecondary Education; Prohibits State Board of Education and BOG from shielding students, staff, and faculty from specific speech; requires the State Board of Education to conduct an annual assessment on intellectual freedom & viewpoint diversity; creates a cause of action for recording or publication of a specific video or audio recordings; revises provisions related to protected expressive activity, university student governments, & codes of conduct. [House Bill 233 Intellectual and Viewpoint Diversity Act](#).

Campus Resources***Health and Wellness*****U Matter, We Care:**

If you or a friend is in distress, please get in touch with umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, or call 352-392-1575 for crisis and non-crisis services information.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 352-392-1161.

University Police Department at 352-392-1111 (or 9-1-1 for emergencies) or the website <http://www.police.ufl.edu/>.

Academic Resources

For E-learning technical support, contact the [UF Computing Help Desk](#) at 352-392-4357 or helpdesk@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance concerning the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://sccr.dso.ufl.edu/policies/student-honor-%20code-student-conduct-code/>

Online Students Complaints: <https://distance.ufl.edu/getting-help/student-complaint-process/>

Syllabus Disclaimer – Right to Make Changes

This syllabus represents the current plans and objectives. Those plans may need to change to enhance learning opportunities and accommodate scheduling conflicts throughout the semester. Canvas will have all the latest updates and changes. If there is conflicting information between Canvas and this Syllabus, please follow the instructions in Canvas, as it should reflect the most recent scheduling.

Course|New for request 18512

Info

Request: MCB 6XXX Computational Genomics and Epigenomics

Description of request: New Joint course request - Grad version

Submitter: Joel H Brendemuhl brendj@ufl.edu

Created: 9/27/2023 3:23:41 PM

Form version: 6

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

MCB

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Joint (Ugrad/Grad)

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Computational Genomics and Epigenomics

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Computational Genomics

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
Yes

Co-Listing Explanation

Please detail how coursework differs for undergraduate, graduate, and/or professional students. Additionally, please upload a copy of both the undergraduate and graduate syllabus to the request in .pdf format. It is recommended that a Course Differentiation document be provided for review and approval purposes. Please see the example below.

• *Differentiation of Co-Listed Courses - Example*

 For more information please see the [Co-Listed Graduate Undergraduate Courses Policy](#).

Response:

The graduate section of this course entails 20% more workload compared to the undergraduate section:

- Graduate students are required to read and write summary reports for eight research papers (50 points out of 1000 points) pertinent to the course content. These papers are optional for undergraduate students.
- Graduate students are expected to undertake a final project (150 points) and present their findings from the final project in the format of a professional paper.

Both the graduate and undergraduate sections comprise ten quizzes, six homework assignments, and midterm and final exams.

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:

Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:

Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:

No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:

No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that

credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:

3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:

Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:

3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic

Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:

Genomics and epigenomics utilize high-throughput sequencing technologies in understanding biology questions. The primary goal of this course is to introduce history, theory, latest advances, and computational approaches in (epi)genomics for conducting large-scale genomic analyses. Course topics include sequence alignment, genome assembly and annotation, variant identification, transcriptomics, small RNAs, DNA methylation, histone modification, open chromatin region, and 3D chromatin interaction.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

Course Prerequisite for the graduate section: N/A.

Course Prerequisite for the undergraduate section: BSC 2891 or STA 2023 or MCB 3020 or MCB 3023 or PCB 3063 or BSC 4434C or MCB 4325C.

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.

• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

Genomics and epigenomics are emerging areas that utilize high-throughput sequencing technologies to allow rapid advances in our understanding of complicated biology questions. Given the increased demand for bioinformatics skillsets in both research and industry, students receiving education through the course will be more competitive for positions in postdoctoral research, graduate school, and jobs in science and medical laboratories, as well as biotechnology and agricultural companies.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

After successful completion of this course, students should be able to:

- use basic command skills in UNIX.
- show mastery of the fundamental concepts and methodology of genomics and epigenomics.
- recognize and differentiate the advantages and disadvantages of different computational approaches and methods.
- employ and compare the computational approaches and methods in analyzing different types of high-throughput genomic data.
- interpret data generated by different computational approaches and methods.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Textbook is not required. Prior to each class, PDF and other relevant documents will be curated and accessible online. In addition, supplementary handouts will be furnished for your review. Students are also required to read the research articles pertinent to the subjects, which will be posted on the course website.

Here are some recommended textbooks that could prove beneficial or engaging:

- Concepts in Bioinformatics and Genomics. 2017. Jamil Momand, Alison McCurdy, Notes by Silvia Heubach, and Nancy Warter-Perez. ISBN: 9780190610548.
- Computational Epigenetics and Diseases. 2019. ISBN: 978-0-12-814513-5.

Week 1:

- Nayfach S. et al. 2021. A genomic catalog of Earth's microbiomes. Nat Biotechnol 39, 499-509. doi: 10.1038/s41587-020-0718-6. (Required)
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. Brief Bioinform. 20, 1981-1996. doi: 10.1093/bib/bby063. (Optional)

Week 2:

- Nurk S. et al. 2022. The complete sequence of a human genome. Science 376, 44-53. doi: 10.1126/science.abj6987. (Required)
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. Brief Bioinform. 20, 1981-1996. doi: 10.1093/bib/bby063. (Optional)

Week 4:

- Deciphering developmental disorders study. 2017. Prevalence and architecture of de novo mutations in developmental disorders. Nature 542, 433-438. <https://doi.org/10.1038/nature21062>. (Required)
- Uffelmann, E. et al. 2021. Genome-wide association studies. Nat Rev Methods Primers 1, 59. <https://doi.org/10.1038/s43586-021-00056-9>. (Optional)

Week 5:

- Logsdon G.A., Vollger M.R., Eichler E.E. 2020. Long-read human genome sequencing and its applications. *Nat Rev Genet* 21, 597–614. <https://doi.org/10.1038/s41576-020-0236-x>. (Required)
- Nicholas J.D., Wayne A., Kim K., Amanda C., Christopher J.C. 2022. No one tool to rule them all: prokaryotic gene prediction tool annotations are highly dependent on the organism of study, *Bioinformatics*, 38, 1198–1207, <https://doi.org/10.1093/bioinformatics/btab827>. (Optional)

Week 6-8:

- Love M.I., Huber W., Anders S. 2014. Moderated estimation of fold change and dispersion for RNA-seq data with DESeq2. *Genome Biol* 15, 550. <https://doi.org/10.1186/s13059-014-0550-8>. (Required)
- Kim D., Paggi J.M., Park C. et al. 2019. Graph-based genome alignment and genotyping with HISAT2 and HISAT-genotype. *Nat Biotechnol* 37, 907-915. (Optional)
- Liu Y., Zhou J., White K.P. 2014. RNA-seq differential expression studies: more sequence or more replication? *Bioinformatics* 30, 301–304. doi:10.1093/bioinformatics/btt688. (Optional)

Week 11:

- Chen X, Rechavi O. 2022. Plant and animal small RNA communications between cells and organisms. *Nat Rev Mol Cell Biol*. 23, 185–203. doi: 10.1038/s41580-021-00425-y. (Required)

Week 12:

- Field AE, Robertson NA, Wang T, Havas A, Ideker T, Adams PD. 2018. DNA methylation clocks in aging: categories, causes, and consequences. *Mol cell*, 71, 882-895. doi: 10.1016/j.molcel.2018.08.008. (Required)
- Tse OYO, et al. 2021. Genome-wide detection of cytosine methylation by single molecule real-time sequencing. *Proc Natl Acad Sci U S A* 118, e2019768118. doi: 10.1073/pnas.2019768118. (Optional)

Week 14:

- Dixon JR, Gorkin DU, Ren B. 2016. Chromatin Domains: The Unit of Chromosome Organization. *Mol Cell* 62, 668-80. doi: 10.1016/j.molcel.2016.05.018. (Required)
- Sexton T, Cavalli G. 2015. The role of chromosome domains in shaping the functional genome. *Cell* 160: 1049-1059. doi: 10.1016/j.cell.2015.02.040. (Optional)

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Week 1 Jan 9-13 UNIX Basics:

1. Course information
2. Introduction of supercomputer
3. Overview of the UNIX operating system
4. Introduction and hands-on UNIX for shell and command lines
5. Hands-on UNIX for module and running batch jobs
6. Introduction to awk

Week 2 Jan 16-20 Sequencing technologies and sequences:

1. Brief history of genomics and epigenomics
2. DNA sequencing (sequencing technologies, FASTA and FASTQ sequences, and tools)
3. Human genome project

Week 3 Jan 23-27 Sequence mapping and alignment:

1. Sequence alignment (Dynamic programming, local and global alignments)
2. Sequence mapping (SAM/BAM, Samtools, BWA, and Bowtie2)
3. Sequence alignment (MUSCLE, ClustalW, and T-coffee)

Week 4 Jan 30 - Feb 3 Variant identification and GWAS analysis:

1. Single nucleotide polymorphism calling (SNPs)

2. Structural variant analysis (InDel)
3. VCF annotation and interpretation (GATK, picard, bcftools and vcftools toolkits)
4. Genotyping by sequencing and genome-wide association studies (plink)

Week 5 Feb 6-10 Genome assembly and annotation:

1. Genome assembly (de novo genome assembly & pan genome)
2. Genome annotation (gene finding)
3. Genome annotation (transposable elements finding)
4. PacBio assembly and gene prediction (canu, circulator, prokka)

Week 6 Feb 19-20 Midterm exam

Week 6-8 Feb 20- Mar 3 RNA-sequencing and differentially expressed genes:

1. RNA-seq experimental design
2. RNA-seq reads quality control, trimming, mapping, and qualification (FASTQC, Trimmomatic, HISAT2, and HTSeq)
3. Identification of differentially expressed genes (DESeq2)
4. R and RStudio
5. Gene ontology (GO) analysis
6. Clustering (Heatmap, K means, and others)

Week 9 Mar 6- 10 Single-cell RNA-seq:

1. Single cell RNA-seq technologies
2. Preprocessing and quality control
3. Read alignment and quantification
4. Dimension reduction and visualization
5. Clustering and annotation
6. Single cell RNA-seq data analysis (Seurat)

Week 10 Mar 13-17 No classes, spring break.

Week 11 Mar 20-24 Small RNAs:

1. Biogenesis and function of small RNAs (microRNAs, small interfering RNAs, and piwi-interacting RNA)
2. Small RNA identification and analyses
3. Target site prediction of small RNAs
4. bedtools

Week 12 Mar 27-31 DNA methylation in plants and animals:

1. DNA methylation (Initiation and maintenance of DNA methylation)
2. Techniques to measure DNA methylation
3. Identification of differentially methylated regions (DMRs)
4. Integrative analysis of DEGs, small RNAs and DMRs

Week 13 Apr 3-7 Histone modification:

1. Chromosome structure and histone tail modifications
2. Histone marks (H3K9me2, H3K27me3, H3K4me3, etc.)
3. ChIP-seq principles and analysis (MACS2, IDR, and IGV)

Week 14 Apr 10-14 Chromatin interaction:

1. Chromatin accessibility (DNase-seq, ATAC-seq including single-cell ATAC-seq, and MNase-seq)
2. 3D chromatin interaction (HiC, chromatin loops, topologically associating domains, A/B compartments, chromosome territories, and HiC-Pro analysis)

Week 15 Apr 17-21 Proteomics and phenomics

Week 16 Apr 24-28 Final project, review, and discussion

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

The overall course is based on 1000 points.

- Weekly or biweekly quizzes (100 points, 10% of final grade): There will be a weekly or biweekly quiz that needs to be completed on the Canvas course website. These quizzes are designed to enhance your comprehension of lectures and course materials.
- Literature reading and discussion (50 points, 5% of final grade): Research articles will be assigned for reading. Each assigned paper requires a concise report (<300 words). We will discuss these papers in the Discussions section within Canvas.
- Assignments after class (400 points, 40% of final grade): Regular post-class assignments will be provided. Late submissions will incur a 5% penalty per day. These assignments aim to reinforce your practice of computational approaches covered in lectures.
- Final project (150 points, 15% of final grade): There will be a final project at the last quarter of the semester. This project component is to give you practice in applying computational methods to address problems in biology. It can relate to the independent research or any topics of interest. Students are required to design, develop, and conduct the project using the computational approaches learned in this course. Projects can be conducted individually or in groups (up to 4 members). You will submit the final project report in the format of a professional publication, including Abstract, Introduction, Results, Discussion, Methods, and References. If working in a group, each member's contributions should be clearly outlined in an "Author Contributions" section. Draft submission is due by March 31, and the final paper must be submitted by April 26.
- Midterm (120 points, 12%) and final exam (180 points, 18% of final grade): Both exams will solely cover material presented during class, assessing your grasp of basic concepts and techniques in computational genomics and epigenomics.

Submission Methods: You need to submit your assignment through our class Canvas website.

930 – 1000 points	93% - 100%	A
900 – 929 points	90% - 92.9%	A-
870 – 899 points	87% - 89.9%	B+
830 – 869 points	83% - 86.9%	B
800 – 829 points	80% - 82.9%	B-
770 – 799 points	77% - 79.9%	C+
730 – 769 points	73% - 76.9%	C
700 – 729 points	70% - 72.9%	C-
670 – 699 points	67% - 69.9%	D+
630 – 669 points	63% - 66.9%	D
600 – 629 points	60% - 62.9%	D-
Less than 600 points	<60%	

F

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Meixia Zhao

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

• <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

* *

Response:
Yes

The graduate section of this course entails 20% more workload compared to the undergraduate section:

- Graduate students are required to read and write summary reports for eight research papers (50 points out of 1000 points) pertinent to the course content. These papers are optional for undergraduate students.
- Graduate students are expected to undertake a final project (150 points) and present their findings from the final project in the format of a professional paper.

Both the graduate and undergraduate sections comprise ten quizzes, six homework assignments, and midterm and final exams.

MCB 6xxx Computational Genomics and Epigenomics

Spring 2023 – 3 credits

Class Location: This course and all class materials (e.g. lecture podcasts, discussion papers, quizzes, assignments, exams, and final project) are available online through the Canvas course website (see below).

Instructor Information

Dr. Meixia Zhao

Room 1006, Microbiology & Cell Science

Phone: 352-273-3715

Email: meixiazhao@ufl.edu

Office Hours: Mondays & Wednesdays 5:00 pm - 6:00 pm or by appointment.

Course Description

Genomics and epigenomics utilize high-throughput sequencing technologies in understanding biology questions. The primary goal of this course is to introduce history, theory, latest advances, and computational approaches in (epi)genomics for conducting large-scale genomic analyses. Course topics include sequence alignment, genome assembly and annotation, variant identification, transcriptomics, small RNAs, DNA methylation, histone modification, open chromatin region, and 3D chromatin interaction.

Course Objectives

After successful completion of this course, students should be able to:

- use basic command skills in UNIX.
- show mastery of the fundamental concepts and methodology of genomics and epigenomics.
- recognize and differentiate the advantages and disadvantages of different computational approaches and methods.
- employ and compare the computational approaches and methods in analyzing different types of high-throughput genomic data.
- interpret data generated by different computational approaches and methods.

Course Website

Login available through Canvas <https://elearning.ufl.edu/>

Course Prerequisite

None. Many of the computational tools we will use are installed on the HiPerGator supercomputers. Every student will be provided with user accounts on the HiPerGator UNIX server. Access to the course UNIX server is required to complete the laboratory exercises and assignments.

Important Dates

- Midterm Exam: Feb 19 – Feb 20, 2023, Sunday – Monday.
- Final Exam: May 03, 2023, Wednesday.

Textbook Information

Textbook is not required. Prior to each class, PDF and other relevant documents will be curated and accessible online. In addition, supplementary handouts will be furnished for your review. Students are also required to read the research articles pertinent to the subjects, which will be posted on the course website.

Here are some recommended textbooks that could prove beneficial or engaging:

- Concepts in Bioinformatics and Genomics. 2017. Jamil Momand, Alison McCurdy, Notes by Silvia Heubach, and Nancy Warter-Perez. ISBN: 9780190610548.
- Computational Epigenetics and Diseases. 2019. ISBN: 978-0-12-814513-5.

Week 1:

- Nayfach S. et al. 2021. A genomic catalog of Earth's microbiomes. *Nat Biotechnol* 39, 499-509. doi: 10.1038/s41587-020-0718-6. (Required)
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. *Brief Bioinform.* 20, 1981-1996. doi: 10.1093/bib/bby063. (Optional)

Week 2:

- Nurk S. et al. 2022. The complete sequence of a human genome. *Science* 376, 44-53. doi: 10.1126/science.abj6987. (Required)
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. *Brief Bioinform.* 20, 1981-1996. doi: 10.1093/bib/bby063. (Optional)

Week 4:

- Deciphering developmental disorders study. 2017. Prevalence and architecture of de novo mutations in developmental disorders. *Nature* 542, 433-438. <https://doi.org/10.1038/nature21062>. (Required)
- Uffelmann, E. et al. 2021. Genome-wide association studies. *Nat Rev Methods Primers* 1, 59. <https://doi.org/10.1038/s43586-021-00056-9>. (Optional)

Week 5:

- Logsdon G.A., Vollger M.R., Eichler E.E. 2020. Long-read human genome sequencing and its applications. *Nat Rev Genet* 21, 597–614. <https://doi.org/10.1038/s41576-020-0236-x>. (Required)
- Nicholas J.D., Wayne A., Kim K., Amanda C., Christopher J.C. 2022. No one tool to rule them all: prokaryotic gene prediction tool annotations are highly dependent on the organism of study, *Bioinformatics*, 38, 1198–1207, <https://doi.org/10.1093/bioinformatics/btab827>. (Optional)

Week 6-8:

- Love M.I., Huber W., Anders S. 2014. Moderated estimation of fold change and dispersion for RNA-seq data with DESeq2. *Genome Biol* 15, 550. <https://doi.org/10.1186/s13059-014-0550-8>. (Required)
- Kim D., Paggi J.M., Park C. et al. 2019. Graph-based genome alignment and genotyping with HISAT2 and HISAT-genotype. *Nat Biotechnol* 37, 907-915. (Optional)
- Liu Y., Zhou J., White K.P. 2014. RNA-seq differential expression studies: more sequence or more replication? *Bioinformatics* 30, 301–304. doi:10.1093/bioinformatics/btt688. (Optional)

Week 11:

- Chen X, Rechavi O. 2022. Plant and animal small RNA communications between cells and organisms. *Nat Rev Mol Cell Biol.* 23, 185–203. doi: 10.1038/s41580-021-00425-y. (Required)

Week 12:

- Field AE, Robertson NA, Wang T, Havas A, Ideker T, Adams PD. 2018. DNA methylation clocks in aging: categories, causes, and consequences. *Mol cell*, 71, 882-895. doi: 10.1016/j.molcel.2018.08.008. (Required)
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Week 14:

- Dixon JR, Gorkin DU, Ren B. 2016. Chromatin Domains: The Unit of Chromosome Organization. *Mol Cell* 62, 668-80. doi: 10.1016/j.molcel.2016.05.018. (Required)
- Sexton T, Cavalli G. 2015. The role of chromosome domains in shaping the functional genome. *Cell* 160: 1049-1059. doi: 10.1016/j.cell.2015.02.040. (Optional)

Grades and Grade Points:

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630 – 669	points	63% - 66.9%	D
600 – 629	points	60% - 62.9%	D-
Less than 600	points	<60%	F

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Tentative Course Schedule

Week	Date	Topic	Quizzes and Assignments
Week 1	Jan 9-13	UNIX Basics: 1. Course information 2. Introduction of supercomputer 3. Overview of the UNIX operating system 4. Introduction and hands-on UNIX for shell and command lines 5. Hands-on UNIX for module and running batch jobs 6. Introduction to awk	Quiz 1
Week 2	Jan 16-20	Sequencing technologies and sequences: 1. Brief history of genomics and epigenomics 2. DNA sequencing (sequencing technologies, FASTA and FASTQ sequences, and tools) 3. Human genome project	Assignment 1, due at 11:59 PM Jan 29
Week 3	Jan 23-27	Sequence mapping and alignment: 1. Sequence alignment (Dynamic programming, local and global alignments) 2. Sequence mapping (SAM/BAM, Samtools, BWA, and Bowtie2) 3. Sequence alignment (MUSCLE, ClustalW, and T-coffee)	Quiz 2
Week 4	Jan 30 - Feb 3	Variant identification and GWAS analysis: 1. Single nucleotide polymorphism calling (SNPs) 2. Structural variant analysis (InDel) 3. VCF annotation and interpretation (GATK, picard, bcftools and vcftools toolkits) 4. Genotyping by sequencing and genome-wide association studies (plink)	Quiz 3 Assignment 2, due at 11:59 PM Feb 19
Week 5	Feb 6-10	Genome assembly and annotation: 1. Genome assembly (<i>de novo</i> genome assembly & pan genome) 2. Genome annotation (gene finding) 3. Genome annotation (transposable elements finding) 4. PacBio assembly and gene prediction (canu, circulator, prokka)	Quiz 4
Week 6	Feb 19-20	Midterm exam	

Week 6-8	Feb 20-Mar 3	RNA-sequencing and differentially expressed genes: <ol style="list-style-type: none"> 1. RNA-seq experimental design 2. RNA-seq reads quality control, trimming, mapping, and qualification (FASTQC, Trimmomatic, HISAT2, and HTSeq) 3. Identification of differentially expressed genes (DESeq2) 4. R and RStudio 5. Gene ontology (GO) analysis 6. Clustering (Heatmap, K means, and others) 	Quiz 5 Assignment 3, due at 11:59 PM Mar 12
Week 9	Mar 6-10	Single-cell RNA-seq: <ol style="list-style-type: none"> 1. Single cell RNA-seq technologies 2. Preprocessing and quality control 3. Read alignment and quantification 4. Dimension reduction and visualization 5. Clustering and annotation 6. Single cell RNA-seq data analysis (Seurat) 	Quiz 6 Assignment 4, due at 11:59 PM Mar 26
Week 10	Mar 13-17	No classes, spring break.	
Week 11	Mar 20-24	Small RNAs: <ol style="list-style-type: none"> 1. Biogenesis and function of small RNAs (microRNAs, small interfering RNAs, and piwi-interacting RNA) 2. Small RNA identification and analyses 3. Target site prediction of small RNAs 4. bedtools 	Quiz 7
Week 12	Mar 27-31	DNA methylation in plants and animals: <ol style="list-style-type: none"> 1. DNA methylation (Initiation and maintenance of DNA methylation) 2. Techniques to measure DNA methylation 3. Identification of differentially methylated regions (DMRs) 4. Integrative analysis of DEGs, small RNAs and DMRs 	Quiz 8 Assignment 5, due at 11:59 PM Apr 9
Week 13	Apr 3-7	Histone modification: <ol style="list-style-type: none"> 1. Chromosome structure and histone tail modifications 2. Histone marks (H3K9me2, H3K27me3, H3K4me3, etc.) 3. ChIP-seq principles and analysis (MACS2, IDR, and IGV) 	Quiz 9 Assignment 6, due at 11:59 PM Apr 16
Week 14	Apr 10-14	Chromatin interaction: <ol style="list-style-type: none"> 1. Chromatin accessibility (DNase-seq, ATAC-seq including single-cell ATAC-seq, and MNase-seq) 2. 3D chromatin interaction (HiC, chromatin loops, topologically associating domains, A/B compartments, chromosome territories, and HiC-Pro analysis) 	Quiz 10
Week 15	Apr 17-21	Proteomics and phenomics	
Week 16	Apr 24-28	Final project, review, and discussion	Final project due at 11:59 PM Apr 26
	May 03	Final exam	

Note: Exact schedule may be changed based on the progress of the class.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at:

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students.

Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu*
Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- *Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.*
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Student Complaints

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>

MCB 4xxx Computational Genomics and Epigenomics

Spring 2023 – 3 credits

Class Location: This course and all class materials (e.g. lecture podcasts, discussion papers, quizzes, assignments, exams, and final project) are available online through the Canvas course website (see below).

Instructor Information

Dr. Meixia Zhao

Room 1006, Microbiology & Cell Science

Phone: 352-273-3715

Email: meixiazhao@ufl.edu

Office Hours: Mondays & Wednesdays 5:00 - 6:00 pm or by appointment.

Course Description

Genomics and epigenomics utilize high-throughput sequencing technologies in understanding biology questions. The primary goal of this course is to introduce history, theory, latest advances, and computational approaches in (epi)genomics for conducting large-scale genomic analyses. Course topics include sequence alignment, genome assembly and annotation, variant identification, transcriptomics, small RNAs, DNA methylation, histone modification, open chromatin region, and 3D chromatin interaction.

Course Objectives

After successful completion of this course, students should be able to:

- use basic command skills in UNIX.
- show mastery of the fundamental concepts and methodology of genomics and epigenomics.
- recognize and differentiate the advantages and disadvantages of different computational approaches and methods.
- employ and compare the computational approaches and methods in analyzing different types of high-throughput genomic data.
- interpret data generated by different computational approaches and methods.

Course Website

Login available through Canvas <https://elearning.ufl.edu/>

Course Pre-Requisites:

BSC 2891, or STA 2023, or MCB 3020, or MCB 3023, or PCB 3063, or BSC 4434C, or MCB 4325C, or permission of the instructor. Many of the computational tools we will use are installed on the HiPerGator supercomputers. Every student will be provided with user accounts on the HiPerGator UNIX server. Access to the course UNIX server is required to complete the laboratory exercises and assignments.

Important Dates

- Midterm Exam: Feb 19 – Feb 20, 2023, Sunday – Monday.
- Final Exam: May 03, 2023, Wednesday.

Textbook Information

Textbook is not required. Prior to each class, PDF and other relevant documents will be curated and accessible online. In addition, supplementary handouts will be furnished for your review.

Here are some recommended textbooks that could prove beneficial or engaging:

- Concepts in Bioinformatics and Genomics. 2017. Jamil Momand, Alison McCurdy, Notes by Silvia Heubach, and Nancy Warter-Perez. ISBN: 9780190610548.
- Computational Epigenetics and Diseases. 2019. ISBN: 978-0-12-814513-5.

The following research articles are **OPTIONAL** for you to read:

Week 1:

- Nayfach S. et al. 2021. A genomic catalog of Earth's microbiomes. *Nat Biotechnol* 39, 499-509. doi: 10.1038/s41587-020-0718-6.
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. *Brief Bioinform.* 20, 1981-1996. doi: 10.1093/bib/bby063.

Week 2:

- Nurk S. et al. 2022. The complete sequence of a human genome. *Science* 376, 44-53. doi: 10.1126/science.abj6987.
- Gauthier J., Vincent A.T., Charette S.J., Derome N. 2019. A brief history of bioinformatics. *Brief Bioinform.* 20, 1981-1996. doi: 10.1093/bib/bby063.

Week 4:

- Deciphering developmental disorders study. 2017. Prevalence and architecture of de novo mutations in developmental disorders. *Nature* 542, 433-438. <https://doi.org/10.1038/nature21062>.
- Uffelmann, E. et al. 2021. Genome-wide association studies. *Nat Rev Methods Primers* 1, 59. <https://doi.org/10.1038/s43586-021-00056-9>.

Week 5:

- Logsdon G.A., Vollger M.R., Eichler E.E. 2020. Long-read human genome sequencing and its applications. *Nat Rev Genet* 21, 597-614. <https://doi.org/10.1038/s41576-020-0236-x>.
- Nicholas J.D., Wayne A., Kim K., Amanda C., Christopher J.C. 2022. No one tool to rule them all: prokaryotic gene prediction tool annotations are highly dependent on the organism of study, *Bioinformatics*, 38, 1198-1207, <https://doi.org/10.1093/bioinformatics/btab827>.

Week 6-8:

- Love M.I., Huber W., Anders S. 2014. Moderated estimation of fold change and dispersion for RNA-seq data with DESeq2. *Genome Biol* 15, 550. <https://doi.org/10.1186/s13059-014-0550-8>.
- Kim D., Paggi J.M., Park C. et al. 2019. Graph-based genome alignment and genotyping with HISAT2 and HISAT-genotype. *Nat Biotechnol* 37, 907-915.
- Liu Y., Zhou J., White K.P. 2014. RNA-seq differential expression studies: more sequence or more replication? *Bioinformatics* 30, 301-304. doi:10.1093/bioinformatics/btt688.

Week 11:

- Chen X, Rechavi O. 2022. Plant and animal small RNA communications between cells and organisms. *Nat Rev Mol Cell Biol* 23, 185-203. doi: 10.1038/s41580-021-00425-y.

Week 12:

- Field AE, Robertson NA, Wang T, Havas A, Ideker T, Adams PD. 2018. DNA methylation clocks in aging: categories, causes, and consequences. *Mol cell*, 71, 882-895. doi: 10.1016/j.molcel.2018.08.008.

- Tse OYO, et al. 2021. Genome-wide detection of cytosine methylation by single molecule real-time sequencing. *Proc Natl Acad Sci U S A* 118, e2019768118. doi: 10.1073/pnas.2019768118.

Week 14:

- Dixon JR, Gorkin DU, Ren B. 2016. Chromatin Domains: The Unit of Chromosome Organization. *Mol Cell* 62, 668-80. doi: 10.1016/j.molcel.2016.05.018.
- Sexton T, Cavalli G. 2015. The role of chromosome domains in shaping the functional genome. *Cell* 160: 1049-1059. doi: 10.1016/j.cell.2015.02.040.

Grades and Grade Points:

For information on current UF policies for assigning grade points, see

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

The overall course is based on 800 points.

- **Weekly quizzes (100 points, 12.5% of final grade):** There will be a weekly or biweekly quiz that needs to be completed on the Canvas course website. These quizzes are designed to enhance your comprehension of lectures and course materials.
- **Assignments after class (400 points, 50% of final grade):** Regular post-class assignments will be provided. Late submissions will incur a 5% penalty per day. These assignments aim to reinforce your practice of computational approaches covered in lectures.
- **Midterm (120 points, 15%) and final exam (180 points, 22.5% of final grade):** Both exams will solely cover material presented during class, assessing your grasp of basic concepts and techniques in computational genomics and epigenomics.

Submission Methods: You need to submit your assignment through our class Canvas website.

930 – 1000	points	93% - 100%	A
900 – 929	points	90% - 92.9%	A-
870 – 899	points	87% - 89.9%	B+
830 – 869	points	83% - 86.9%	B
800 – 829	points	80% - 82.9%	B-
770 – 799	points	77% - 79.9%	C+
730 – 769	points	73% - 76.9%	C
700 – 729	points	70% - 72.9%	C-
670 – 699	points	67% - 69.9%	D+
630 – 669	points	63% - 66.9%	D
600 – 629	points	60% - 62.9%	D-
Less than 600	points	<60%	F

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Tentative Course Schedule

Week	Date	Topic	Quizzes and Assignments
Week 1	Jan 9-13	UNIX Basics: <ol style="list-style-type: none"> 1. Course information 2. Introduction of supercomputer 3. Overview of the UNIX operating system 4. Introduction and hands-on UNIX for shell and command lines 5. Hands-on UNIX for module and running batch jobs 6. Introduction to awk 	Quiz 1
Week 2	Jan 16-20	Sequencing technologies and sequences: <ol style="list-style-type: none"> 1. Brief history of genomics and epigenomics 2. DNA sequencing (sequencing technologies, FASTA and FASTQ sequences, and tools) 3. Human genome project 	Assignment 1, due at 11:59 PM Jan 29
Week 3	Jan 23-27	Sequence mapping and alignment: <ol style="list-style-type: none"> 1. Sequence alignment (Dynamic programming, local and global alignments) 2. Sequence mapping (SAM/BAM, Samtools, BWA, and Bowtie2) 3. Sequence alignment (MUSCLE, ClustalW, and T-coffee) 	Quiz 2
Week 4	Jan 30 - Feb 3	Variant identification and GWAS analysis: <ol style="list-style-type: none"> 1. Single nucleotide polymorphism calling (SNPs) 2. Structural variant analysis (InDel) 3. VCF annotation and interpretation (GATK, picard, bcftools and vcftools toolkits) 4. Genotyping by sequencing and genome-wide association studies (plink) 	Quiz 3 Assignment 2, due at 11:59 PM Feb 19
Week 5	Feb 6-10	Genome assembly and annotation: <ol style="list-style-type: none"> 1. Genome assembly (<i>de novo</i> genome assembly & pan genome) 2. Genome annotation (gene finding) 3. Genome annotation (transposable elements finding) 4. PacBio assembly and gene prediction (canu, circulator, prokka) 	Quiz 4
Week 6	Feb 19-20	Midterm exam	
Week 6-8	Feb 20-Mar 3	RNA-sequencing and differentially expressed genes: <ol style="list-style-type: none"> 1. RNA-seq experimental design 2. RNA-seq reads quality control, trimming, mapping, and qualification (FASTQC, Trimmomatic, HISAT2, and HTSeq) 3. Identification of differentially expressed genes (DESeq2) 4. R and RStudio 5. Gene ontology (GO) analysis 6. Clustering (Heatmap, K means, and others) 	Quiz 5 Assignment 3, due at 11:59 PM Mar 12
Week 9	Mar 6-10	Single-cell RNA-seq: <ol style="list-style-type: none"> 1. Single cell RNA-seq technologies 2. Preprocessing and quality control 3. Read alignment and quantification 4. Dimension reduction and visualization 5. Clustering and annotation 	Quiz 6 Assignment 4, due at 11:59 PM Mar 26

		6. Single cell RNA-seq data analysis (Seurat)	
Week 10	Mar 13-17	No classes, spring break.	
Week 11	Mar 20-24	Small RNAs: 1. Biogenesis and function of small RNAs (microRNAs, small interfering RNAs, and piwi-interacting RNA) 2. Small RNA identification and analyses 3. Target site prediction of small RNAs 4. bedtools	Quiz 7
Week 12	Mar 27-31	DNA methylation in plants and animals: 1. DNA methylation (Initiation and maintenance of DNA methylation) 2. Techniques to measure DNA methylation 3. Identification of differentially methylated regions (DMRs) 4. Integrative analysis of DEGs, small RNAs and DMRs	Quiz 8 Assignment 5, due at 11:59 PM Apr 9
Week 13	Apr 3-7	Histone modification: 1. Chromosome structure and histone tail modifications 2. Histone marks (H3K9me2, H3K27me3, H3K4me3, etc.) 3. ChIP-seq principles and analysis (MACS2, IDR, and IGV)	Quiz 9 Assignment 6, due at 11:59 PM Apr 16
Week 14	Apr 10-14	Chromatin interaction: 1. Chromatin accessibility (DNase-seq, ATAC-seq including single-cell ATAC-seq, and MNase-seq) 2. 3D chromatin interaction (HiC, chromatin loops, topologically associating domains, A/B compartments, chromosome territories, and HiC-Pro analysis)	Quiz 10
Week 15	Apr 17-21	Proteomics and phenomics	
Week 16	Apr 24-28	Final review and discussion	
	May 03	Final exam	

Note: Exact schedule may be changed based on the progress of the class.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at:

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.*” You are expected to exhibit behavior consistent with this commitment to the UF

academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu*
Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- *Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.*

- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Student Complaints

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>

Course|New for request 18767

Info

Request: PHA 6XXX Forensic Ethics

Description of request: This is a request for a new 2-credit hour elective course focusing on Forensic Ethics.

Submitter: Emely McKitrick emely.mckitrick@ufl.edu

Created: 8/14/2023 10:58:02 AM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
PHA

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:
6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Intermediate

- 1000 level = *Introductory undergraduate*
- 2000 level = *Introductory undergraduate*
- 3000 level = *Intermediate undergraduate*
- 4000 level = *Advanced undergraduate*
- 5000 level = *Introductory graduate*
- 6000 level = *Intermediate graduate*
- 7000 level = *Advanced graduate*
- 4000/5000= *Joint undergraduate/graduate*
- 4000/6000= *Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:

Forensic Ethics

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:

Forensic Ethics

Degree Type

Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)

*Indicate all platforms through which the course is *<i>currently</i>* *<i>planned</i>* to be delivered.*

Response:

Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
2

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week *on average* throughout the duration of the course.

Response:
2.5

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Provide a background on the unique ethical considerations that forensic scientists face; students will explore what the guiding principles are for ethics in forensic science, the culture of the criminal justice system, and how to consider ethics both scientifically and in the courtroom.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

There are no prerequisites.

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This elective course will be offered under the M.S. in Pharmaceutical Sciences with a concentration in Forensic Science program.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

At the completion of this course, the learner will be able to:

- ? Understand how ethics relates to the field of forensic science
- ? Demonstrate knowledge of the core values that should be considered ethically in the field
- ? Be able to analyze how the culture of the criminal justice system impacts individuals in making ethical decision
- ? Hypothesize what unethical behaviors in the field are, and how they can be corrected
- ? Explain and evaluate different methods of reform that can occur to correct unethical issues
- ? Recognize and be able to articulate the role of ethics in trial preparing and testimony in the courtroom
- ? Recognize and be able to articulate the role of ethics when completing scientific methods

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Ethics and the Practice of Forensic Science, Bowen, Robin. 2018. 2nd edition, Taylor & Francis Group, LLC; ISBN-13: 978-0-367-78185-9

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Module 1: Introduction to Ethics (Chapter 1)
Module 2: Ethics in Forensic Science (Chapters 2 and 3)
Module 3: Criminal Justice Culture (Chapter 4)
Module 4: Criminal Justice Reform (Chapter 5)
Module 5: Ethics in Trial Prep and Testimony (Chapter 6)
Module 6: Ethics in Science (Chapter 7)
Module 7: Unethical behavior (Chapter 8)
Module 8: Code of Ethics (Chapter 10)

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Weekly Module Quizzes (lowest quiz grade will be dropped; n=6) 30% of final grade
Participation in Discussion Board (n=6) 15% of final grade
Final Capstone Project Assignment 55% of final
- Research specific aims/objectives with hypotheses (5%)
- Background and Significance (10%)
- Preliminary Methods (10%)
- Final Abstract (5%)
- Final Written Report (25%)

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Cortney MacDonald, MS
Instructional Assistant Professor
Department of Medicinal Chemistry
University of Florida College of Pharmacy
E-mail: olmstead@ufl.edu
Office Hours: Vary by week and available upon request

Nancy Toffolo, MS
Director, Instructional Associate Professor Department of Medicinal Chemistry
University of Florida College of Pharmacy
E-mail: ntoffolo@ufl.edu
Office Hours: Vary by week and available upon request

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.*

Response:
Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- *<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- *Students are expected to provide professional and respectful feedback on the*

quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

PHA XXXX: Forensic Ethics (2 credit hours)

Date TBD

Delivery Format: Online Course

Course Coordinators:

Cortney MacDonald, MS

Instructional Assistant Professor

Department of Medicinal Chemistry

University of Florida College of Pharmacy

E-mail: olmstead@ufl.edu

Office Hours: Vary by week and available upon request

Nancy Toffolo, MS

Director, Instructional Associate Professor

Department of Medicinal Chemistry

University of Florida College of Pharmacy

E-mail: ntoffolo@ufl.edu

Office Hours: Vary by week and available upon request

Pre-Requisites:

- None

Co-Requisites:

None

PURPOSE and OUTCOME

Provide a background on the unique ethical considerations that forensic scientists face; students will explore what the guiding principles are for ethics in forensic science, the culture of the criminal justice system, and how to consider ethics both scientifically and in the courtroom.

Course Objectives

Upon completion of this course, the student will be able to:

- Understand how ethics relates to the field of forensic science
- Demonstrate knowledge of the core values that should be considered ethically in the field
- Be able to analyze how the culture of the criminal justice system impacts individuals in making ethical decision
- Hypothesize what unethical behaviors in the field are, and how they can be corrected
- Explain and evaluate different methods of reform that can occur to correct unethical issues
- Recognize and be able to articulate the role of ethics in trial preparing and testimony in the courtroom
- Recognize and be able to articulate the role of ethics when completing scientific methods

Instructional Methods

Students will learn from viewing module notes, completing assignments and participating in discussion boards. The course duration is 16 weeks (see Course Schedule). Every other week, students will independently view module notes and complete required readings. Students will complete online assignments to assess understanding of and provide their insight to the reading and coursework materials. The instructors are available throughout the course to clarify information via discussion board postings.

Materials and Supply Fees

None

Course Materials and Technology

Canvas Learning Management System. For assistance with Canvas or other course technology, please contact: UF Distance Education Support Services - [dessa@ahc.ufl.edu](mailto:dess@ahc.ufl.edu)

Required Textbooks and Software

- Required Textbook:
 - Ethics and the Practice of Forensic Science, Bowen, Robin. 2018. 2nd edition, Taylor & Francis Group, LLC; ISBN-13: 978-0-367-78185-9
- For each lecture, students will have access to handouts and other resources that are made available on Canvas.
- Journal articles, class notes developed by the instructor, or other required reading/resources will be provided to students through the course website.

DESCRIPTION OF COURSE CONTENT- Course Schedule

Week/Date	Activity/Instructors/Assessment (*with hand-on practice)		Contact Hrs.
Week 1	Demystifying Artificial Intelligence in Digital Medicine		
08/23/23-08/29/23	Lecture	Course Introduction- Dr. Jenny Lo-Ciganic	0.5
	Lecture	Demystifying AI in Digital Medicine-Dr. Whitley Yi & Dr. Christy Cheung	1.5
	Readings	<ul style="list-style-type: none"> • Haug CJ, Drazen JM. Artificial Intelligence and Machine Learning in Clinical Medicine, 2023. N Engl J Med. 2023;388(13):1201-1208. • Supplemental: Aungst T, Franzese C, Kim Y. Digital health implications for clinical pharmacists services: A primer on the current landscape and future concerns. J Am Coll Clin Pharm. 2021;4(4):514-524. • Supplemental: Lee P, Bubeck S, Petro J. Benefits, Limits, and Risks of GPT-4 as an AI Chatbot for Medicine. N Engl J Med. 2023;388(13):1233-1239. 	0.5
Week 2	Introduction to Artificial Intelligence		
08/30/23-09/05/23	Lecture	Introduction to Machine Learning Methods (I) – Dr. Jenny Lo-Ciganic	2.0
	Deliverable	Capstone project-Topic approval	
	Readings	<ul style="list-style-type: none"> • Doupe P, Faghmous J, Basu S. Machine Learning for Health Services Researchers. Value Health. 2019;22(7):808-815. • Collins GS, Reitsma JB, Altman DG, Moons KG. Transparent Reporting of a multivariable prediction model for Individual Prognosis or Diagnosis (TRIPOD): the TRIPOD statement. Ann Intern Med. 2015;162(1):55-63. 	2.0
	Quiz	Module 2 Quiz	0.5
Week 3	Introduction to Machine Learning Methods		
09/06/23-09/12/23	Lecture	Introduction to Machine Learning Methods (II) – Dr. Jenny Lo-Ciganic	2.0
	Readings	<ul style="list-style-type: none"> • Chirikov VV, Shaya FT, Onukwugha E, Mullins CD, dosReis S, Howell CD. Tree-based Claims Algorithm for Measuring Pretreatment Quality of Care in Medicare Disabled Hepatitis C Patients. Med Care. 2017 ;55(12):e104-e112. • Supplemental: Crown WH. Real-World Evidence, Causal Inference, and Machine Learning. Value Health. 2019;22(5):587-592. • Supplemental: The Elements of Statistical Learning, 2nd Edition (Hastie, Tibshirani, Friedman 2009). A free electronic version of the book can be downloaded at http://statweb.stanford.edu/~tibs/ElemStatLearn/ 	1.0
	Discussion	Module 3 Discussion Board Assignment	0.5
Week 4	Artificial Intelligence in Drug Design		
09/13/23-09/19/23	Lecture	AI in Drug Design – Dr. Chenglong Li	1.5
	Deliverable	Capstone project-Research Specific Aims	
	Readings	<ul style="list-style-type: none"> • Supplemental: Highly accurate protein structure prediction with AlphaFold. Nature. 2021, 596: 583-589. doi: 10.1038/s41586-021-03819-2. • Supplemental: Mapping the space of chemical reactions using attention-based neural networks. Nature Machine Intelligence, 2021, 3: 144–152. 	

		<ul style="list-style-type: none"> Supplemental: De Novo Structure-Based Drug Design Using Deep Learning. <i>J Chem Inf Model</i>. 2021. doi: 10.1021/acs.jcim.1c01319. Supplemental: Deep Learning in Drug Design: Protein-Ligand Binding Affinity Prediction. <i>IEEE/ACM Trans Comput Biol Bioinform.</i>, 2020, doi: 10.1109/TCBB.2020.3046945. 	
	Quiz	Module 4 Quiz	0.5
Week 5	Artificial Intelligence in Drug Design-Part 2		
09/20/23- 09/26/23	Lecture	AI in Drug Design*– Dr. Gustavo Seabra	2.0
	Readings	<ul style="list-style-type: none"> Anstine, D. M., & Isayev, O. (2023). Generative Models as an Emerging Paradigm in the Chemical Sciences. <i>Journal of the American Chemical Society</i>. https://doi.org/10.1021/JACS.2C13467 Supplemental: Tong, X., Liu, X., Tan, X., Li, X., Jiang, J., Xiong, Z., Xu, T., Jiang, H., Qiao, N., & Zheng, M. (2021). Generative Models for De Novo Drug Design. <i>Journal of Medicinal Chemistry</i>, 64(19), 14011–14027. https://doi.org/10.1021/ACS.JMEDCHEM.1C00927 Supplemental: Bajorath, J., Kearnes, S., Walters, W. P., Meanwell, N. A., Georg, G. I., & Wang, S. (2020). Artificial Intelligence in Drug Discovery: Into the Great Wide Open. <i>Journal of Medicinal Chemistry</i>. acs.jmedchem.0c01077. https://doi.org/10.1021/acs.jmedchem.0c01077 Supplemental: Vanhaelen, Q., Lin, Y.-C., & Zhavoronkov, A. (2020). The Advent of Generative Chemistry. <i>ACS Medicinal Chemistry Letters</i>. acsmedchemlett.0c00088. https://doi.org/10.1021/acsmedchemlett.0c00088 	1.0
	Discussion	Module 5 Discussion Board Assignment	0.5
Week 6	Machine Learning in Drug Development		
09/27/23- 10/03/23	Lecture	Introduction to Machine Learning in Drug Development – Dr. Sarah Kim	1.0
	Lecture	Applications of Machine Learning in Drug Development – Dr. Jagdeep Podichetty	1.0
	Readings	<ul style="list-style-type: none"> Talevi A, Morales JF, Hather G, Podichetty JT, Kim S, Bloomingdale PC, Kim S, Burton J, Brown JD, Winterstein AG, Schmidt S, White JK, Conrado DJ. Machine Learning in Drug Discovery and Development Part 1: A Primer. <i>CPT Pharmacometrics Syst Pharmacol</i>. 2020 Mar;9(3):129-142. doi: 10.1002/psp4.12491. Epub 2020 Mar 11. PMID: 31905263; PMCID: PMC7080529. Liu Q, Huang R, Hsieh J, Zhu H, Tiwari M, Liu G, Jean D, ElZarrad MK, Fakhouri T, Berman S, Dunn B, Diamond MC, Huang SM. Landscape Analysis of the Application of Artificial Intelligence and Machine Learning in Regulatory Submissions for Drug Development From 2016 to 2021. <i>Clin Pharmacol Ther</i>. 2023 Apr;113(4):771-774. doi: 10.1002/cpt.2668. Epub 2022 Jun 16. PMID: 35707940. Supplemental: Chaturvedula, A., Calad-Thomson, S., Liu, C., Sale, M., Gattu, N. and Goyal, N. (2019), Artificial Intelligence and Pharmacometrics: Time to Embrace, Capitalize, and Advance?. <i>CPT Pharmacometrics Syst. Pharmacol.</i>, 8: 440-443. https://doi.org/10.1002/psp4.12418 Supplemental: Johnson, M, Patel, M, Phipps, A, van der Schaar, M, Boulton, D, Gibbs, M. The potential and pitfalls of artificial 	1.0

		intelligence in clinical pharmacology. CPT Pharmacometrics Syst Pharmacol. 2023; 12: 279- 284. doi:10.1002/psp4.12902	
	Quiz	Module 6 Quiz	0.5
Week 7	Artificial Intelligence in Pharmacodynamics		
10/04/23-10/10/23	Lecture	AI in Pharmacodynamics– Dr. Brandon Warren	1.0
	Readings	<ul style="list-style-type: none"> • Tripathi MK, Nath A, Singh TP, Ethayathulla AS, Kaur P. Evolving scenario of big data and Artificial Intelligence (AI) in drug discovery. Mol Divers. 2021 Aug;25(3):1439-1460. doi: 10.1007/s11030-021-10256-w. PMID: 34159484; PMCID: PMC8219515. 	1.5
	Quiz	Module 7 Quiz	0.5
Week 8	Artificial Intelligence in Pharmacogenomics		
10/11/23-10/17/23	Lecture	Introduction to Genomic Medicine and Pharmacogenomics – Dr. Caitrin McDonough	1.0
	Lecture	Application of AI in Pharmacogenomics and Precision Medicine – Dr. Yan Gong	1.0
	Deliverable	Capstone project-Background and Significance	
	Readings	<ul style="list-style-type: none"> • Primorac D, Bach-Rojecky L, Vađunec D, Juginović A, Žunić K, Matišić V, Skelin A, Arsov B, Boban L, Erceg D, Ivkošić IE, Molnar V, Čatić J, Mikula I, Boban L, Primorac L, Esquivel B, Donaldson M. Pharmacogenomics at the center of precision medicine: challenges and perspective in an era of Big Data. Pharmacogenomics. 2020 Jan;21(2):141-156. doi: 10.2217/pgs-2019-0134. Epub 2020 Jan 17. PMID: 31950879. https://www.futuremedicine.com/doi/pdf/10.2217/pgs-2019-0134 	1.0
	Discussion	Module 8 Discussion Board Assignment	0.5
Week 9	Ethical AI in Pharmacy Applications		
10/18/23-10/24/23	Pre-Lecture Discussion	Module 9 Discussion Board Assignment- <i>due prior to lecture</i>	1.0
	Live Lecture	Ethical AI in Pharmacy applications – Dean Amy Stein, J.D. (<i>synchronous format</i>) <i>live lecture via Zoom on 10/22/23 at 7pm EST</i>	1.0
	Readings	<ul style="list-style-type: none"> • Ethics and governance of artificial intelligence for health: WHO guidance. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.(starting at p. 11-12, 14, 25-30, all of Chapter 6, and 93-94) • U.S. FDA. Using Artificial Intelligence & Machine Learning in the Development of Drug and Biological Products. ONLY required section is Part III (starting at p. 15) https://www.fda.gov/media/167973/download • Politico. AI is about to remake the pharmaceutical industry (2023),https://www.politico.eu/article/ai-is-about-to-remake-the-pharmaceutical-drug-medicines-industry/ • Columbia University. Sex-Specific Adverse Drug Effects Identified Through Algorithm. https://www.dbmi.columbia.edu/sex-specific-adverse-drug-effects-identified-through-algorithm/ • SKIM Novartis. Novartis' commitment to the ethical and responsible use of Artificial Intelligence (AI) Systems (2020). https://www.novartis.com/sites/novartis_com/files/novartis-responsible-use-of-ai-systems.pdf 	2.0
Week 10	Health Information Technology and Pharmacy Informatics		
10/25/23-	Lecture	Electronic Health Record and Healthcare Data – Dr. Khoa Nguyen	1.0

10/31/23	Lecture	Integrating AI into Electronic Health Record System: Benefits and Challenges – Dr. Khoa Nguyen	1.0
	Readings	<ul style="list-style-type: none"> Supplemental: Electronic health records: then, now, and in the future by RS Evans. Supplemental: Kohli, R., & Tan, S. S.-L. (2016). Electronic Health Records: How Can IS Researchers Contribute to Transforming Healthcare? <i>MIS Quarterly</i>, 40(3), 553–574. https://www.jstor.org/stable/26629027 Supplemental: Morin, O., Vallières, M., Braunstein, S. et al. An artificial intelligence framework integrating longitudinal electronic health records with real-world data enables continuous pan-cancer prognostication. <i>Nat Cancer</i> 2, 709–722 (2021). https://doi.org/10.1038/s43018-021-00236-2 Supplemental: Ye, Jiancheng. "The impact of electronic health record–integrated patient-generated health data on clinician burnout." <i>Journal of the American Medical Informatics Association</i> 28.5 (2021): 1051-1056. 	
	Quiz	Module 10 Quiz	0.5
Week 11	Natural Language Processing and Unstructured Data		
11/01/23-11/07/23	Lecture	Natural Language Processing & Unstructured data – Dr. Masoud Rouhizadeh	2.0
	Readings	<ul style="list-style-type: none"> Fu, S., Chen, D., He, H., Liu, S., Moon, S., Peterson, K.J., Shen, F., Wang, L., Wang, Y., Wen, A., & Zhao, Y. (2020). Clinical concept extraction: A methodology review. <i>Journal of Biomedical Informatics</i>, 109, 103526. Supplemental: Dalianis, Hercules. Clinical text mining: Secondary use of electronic patient records. Springer Nature, 2018. https://link.springer.com/book/10.1007/978-3-319-78503-5 OPEN ACCESS Supplemental: Cohen, Kevin and Demner-Fushman, Dina. Biomedical natural language processing. John Benjamins Publishing Company, 2014. https://ebookcentral.proquest.com/lib/ufl/reader.action?docID=3016032&query FREE ONLINE ACCESS from UFL 	1.0
	Discussion	Module 11 Discussion Board Assignment	0.5
Week 12	Applying Microsimulation Models in Pharmacy		
11/08/23-11/14/23	Lecture	Applying microsimulation models in Pharmacy – Dr. Hui Shao	1.0
	Deliverable	Capstone project-Preliminary Methods	
	Readings	<ul style="list-style-type: none"> Caro, J. Jaime, Andrew H. Briggs, Uwe Siebert, and Karen M. Kuntz. "Modeling Good Research Practices—Overview: A Report of the ISPOR-SMDM Modeling Good Research Practices Task Force–1." <i>Medical Decision Making</i> 32, no. 5 (September 1, 2012): 667–77. https://doi.org/10.1177/0272989X12454577. 	1.0
	Quiz	Module 12 Quiz	0.5
Week 13	Causal Inference in AI		
11/15/23-11/21/23	Lecture	Causal Inference in AI – Dr. Tianze Jiao	1.5
	Readings	<ul style="list-style-type: none"> Towards Causal Representation Learning. https://arxiv.org/pdf/2102.11107.pdf Causality for Machine Learning. https://arxiv.org/abs/1911.10500 	1.5
	Discussion	Module 13 Discussion Board Assignment	0.5
Week 14	Bias, Equity, and Fairness Assessment in AI/ML		
11/22/23-11/28/23	Lecture	Bias, Equity, and Fairness assessment in AI/ML – Dr. Serena Guo	1.0
	Deliverable	Capstone project-Final Abstract	

	Readings	<ul style="list-style-type: none"> Obermeyer Z, Powers B, Vogeli C, Mullainathan S. Dissecting racial bias in an algorithm used to manage the health of populations. Science. 2019 Oct 25;366(6464):447-453. doi: 10.1126/science.aax2342. PMID: 31649194. 	1.0
	Quiz	Module 14 Quiz	0.5
Week 15-16	Final Capstone Project		
11/29/23-12/12/23	Deliverable	Capstone project-Final written report	

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Attendance Policy, Class Expectations, and Make-Up Policy

This is an online course. Attendance means you are expected to complete the course learning activities so that you meet the established deadlines. Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Students who wish to drop from the course must do so by the drop/add deadline established by the Office of the University Registrar. Students must not assume they will be automatically dropped if they fail to participate in the course learning activities.

Students will be allowed to make-up quizzes, assignments, and discussion board activities for acceptable reasons as described in the Graduate Catalog. See: <http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

ACADEMIC REQUIREMENTS AND GRADING

Grading:

Evaluation Methods and How Grades are calculated.

[The Canvas© gradebook will be set-up using the percentages below to compute the grade.]

Assessment Item	Grade Percentage
Weekly Module Quizzes- lowest graded quiz will be dropped (n=7-1=6)	30%
Participation in Discussion Board- (n=6)	15%
Final Capstone Project Assignment <ul style="list-style-type: none"> • Research specific aims/objectives with hypotheses 5% • Background and Significance 10% • Preliminary Methods 10% • Final Abstract 5% • Final written report 25% 	55%
Total	100%

Course Assignments:

Module Quizzes

Most weeks, students will be required to complete a brief quiz (Weeks 2,4,6,7,10,12 and 14). All quizzes include 5 to 7 multiple-choices questions. Any content covered in lectures or required readings may be included on the quiz. All quizzes will be open-material and will have a 30-minute time limit to complete.

Discussion Board Assignments

Students will be required to complete Discussion Board Assignments throughout the course (Weeks 3,5,8,9,11, and 13). Students will be asked to answer a question based on the topics covered in that week's lecture and readings. Students should use primary literature to support their arguments and should interpret the information available to synthesize an opinion prior to posting their answer. Students will also be encouraged to interact with each other's posts and provide thoughtful questions and re-interpretation of their classmates' opinions and analysis. A grading rubric is provided in **Appendix A**.

Capstone Project

In Week 2 of the course, students will be divided into assigned groups to work throughout the semester on a research protocol pertaining to a case related to AI in pharmacy. Each case will describe the issues or challenges that pharmacy researchers currently face. Using primary literature and existing guidelines, students will create a grant-style written report to answer the case questions using AI/ML methods. The course faculty will provide feedback on deliverables at multiple time points throughout the semester to guide students in the process of developing the grant-style proposal. Grading for the Capstone project will be based on the 3 deliverables (i.e., background and significance, preliminary methods, final abstract), and Final Submitted Project Write-up. Late submissions will not be accepted. A project overview, format, and grading rubric will be provided in **Appendices B, C, and D**.

Rounding of grades

Final grades in Canvas will be rounded to the 2nd decimal place. If the decimal is X.495 or higher, Canvas will round the grade to X.50. The above scale depicts this policy and grades are determined accordingly. Grade assignment is made using this policy and **NO EXCEPTIONS** will be made in situations where a student's grade is "close."

Grading Policy

Percent	Grade	Grade Points
92.5 - 100.0	A	4.00
89.5 – 92.49	A-	3.67
86.5 – 89.49	B+	3.33
82.5 – 86.49	B	3.00
79.5 – 82.49	B-	2.67
76.5 – 79.49	C+	2.33
72.5 – 76.49	C	2.00
69.5 – 72.49	C-	1.67
66.5 – 69.49	D+	1.33
62.5 – 66.49	D	1.00
59.5 - 62.49	D-	0.67
< 59.50	E	0.00

Letter grade to grade point conversions are fixed by UF and cannot be changed.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

Points																			
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More information on UF grading policy may be found at:

[UF Graduate Catalog](#)

[Grades and Grading Policies](#)

Policies

Policy Related to Quizzes, Assignment submissions, and Discussion Board Participation

Make-Up Policy: Students will be allowed to make-up quizzes, assignments, and discussion board activities for acceptable reasons as described in the Graduate Catalog. See:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Course Participation

This is an online course therefore, attendance means you are expected to complete the course learning activities so that you meet the established deadlines. Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Students who wish to drop from the course must do so by the drop/add deadline established by the Office of the University Registrar. Students must not assume they will be automatically dropped if they fail to participate in the course learning activities.

Policy Related to Late Assignments

Students are expected to submit assignments on time. If a student has an emergency, they must communicate with the instructor in a timely manner (more than one day prior to the deadline, if possible). It is at the instructor's discretion to provide assignment extensions. For the final project, 10 points will be deducted for each day from the deadline..

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

Appendix A. Rubric for Assessing Student Participation in Discussion Board Activities Grade Determination

Total Points – 10 points = 100%, 9 points = 90%, 8 points = 80%, 7 points = 70%, 6 points = 60%, 5 points = 50%, 4 points = 40%, 3 points = 30%, 2 points = 20%, 1 point = 10%, 0 points = 0%

Proficiency Level	Below Expectations (0-6 Points)	Meets Expectations (7-8 Points)	Above Expectations (9-10 Points)
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Content	Information is plagiarized or directly copied from reference material, or no reference material is used. No citations are referenced. Reflections are descriptive: a reiteration of what was presented by instructor or in the assigned readings. Serious misinterpretations or not interpretation of the information is evident.	Information is summarized and not a reiteration of information provided by the instructor or in readings. Some references are sometimes made to readings or experiences. Provides less than full citations for works referenced.	Cites multiple readings and prior experiences and explains how these references extend and refine insights. Provides full citations for works referenced.
Interpretation	Presents information without any interpretations. Reflection is shallow and egocentric.	Interpretations of information are clear but lack insight into application or meaning.	Interprets information in accurate and insightful ways.
Organization	Information is disorganized.	Most information is logically presented and well organized.	All information is logically presented and well organized.
Mechanics	Three or more grammatical, spelling or punctuation errors.	1-2 grammatical, spelling or punctuation errors.	No grammatical, spelling or punctuation errors.
Quality of Information	Comments are uninformative, lacking in appropriate terminology. Heavy reliance on opinion and personal taste, e.g., "I love it", "I hate it", "It's bad" etc.	Comments are sometimes constructive, with occasional signs of insight. Student does not use appropriate terminology; comments not always relevant to the discussion.	Comments always insightful and constructive; uses appropriate terminology. Comments balanced between general impressions, opinions and specific, thoughtful criticisms or contributions.

Appendix B. Instructions and Rubric for Written Capstone Project

Format of the Final Written Report:

The final report should be structured as a grant proposal (Use Arial font size 11 and single-spaced. Page margins must be more than 0.5” on each side). Reference page does not count towards page limit (Follow JAMA style of references). See **sample R03 style grants formatted for NIH in the following link:** <https://www.niaid.nih.gov/grants-contracts/sample-applications>

The following sections are required for the final written report:

1. **Research specific aims/objectives with hypotheses** (1-page limit) – Includes brief background/significance, followed by specific aims or study objectives (no more than 2 major aims) with corresponding hypotheses
2. **Background and Significance** (1 page limit)
 - a. Background: introduction to frame your significance (What is known and what is the gap?)
 - b. Significance connection: why is this research question important and needed? How does your research question fill in the current gaps?
3. **Methods** (4-page limit): You are expected to provide the following sections in your Methods section. Please provide rationales and references to support your Methods.

Sections needed	Instructions	Points
Data sources	The group explains the rationale for the specific dataset use in the study to answer research question. The group describes specific dataset or tables of interest from the data sources of interest and explains linkages procedures if applicable.	5
Study sample	The group explains the rationale for inclusion and exclusion criteria for study sample that will be used in the analysis. The group explains eligibility requirements including inclusion and exclusion criteria (e.g., age group) for the study sample.	10
Study design	The group clearly explains the rationale for selection of specific study design and providing necessary information for the study design chose such as the definition of the index date, look back period, follow-up period	10
Measurement of exposure or intervention and outcomes	The group clearly explains ascertainment of exposure for treatment and control group (e.g. validated algorithm), and outcome measures	10
Covariates or confounding factors	The group clearly explains potential confounders and how these confounders will be measured in the datasets used.	10
Statistical analysis	The group explains rationale for selection of specific statistical tests (including at least 1 AI/ML method) to answer hypothesis of research question, and methods to evaluate and interpret the findings.	20
Sample size and power	The group provides the calculation of the sample size needed to answer research question, or whether the statistical power is sufficient for current analysis using existing data.	2.5
Sensitivity & subgroup analyses	The group describes sensitivity analysis and/or stratified analyses and explains the rationale.	2.5
Limitations and potential solutions	The group discusses potential limitations and alternative solutions. These may include, but not limited to, possible effects of different biases, missing data, unmeasured confounding and generalizability issues.	10
Timeline for the research project	The group presents a small Gantt Chart to show timeline of research project. Assume you will “get funded” for the project and the start date is January 1, 2023	5
Formatting	The final report should be structured as a grant proposal (Use Arial font size 11 and single-spaced. Page margins must be more than 0.5” on each side). The group follows all the formatting instructions listed above and stays within the page limit requirements.	5
References	Reference page does not count towards page limit. The group follows proper JAMA style of references and citation.	5
Plagiarism report	The report of plagiarism is not higher than 20% based on TurnItIn check	5

Final Presentation: Groups will have each 10 to 12 minutes to briefly report their capstone project. The slides presented must follow the same logic from the final report. Peers will be assigned to ask questions for each group. Q&A will take up to 3 minutes

TIMELINE OF DELIVERABLES:



Appendix C. Grading Rubric for Aims, Significance, Methods and Abstract Sections

Students will be graded on the quality of information, interpretation, and organization of information presented. Students are expected to interpret information in an accurate and insightful way using logically presented and well-organized thought. Students should not plagiarize any content from published works. Large sections of quoted text will also be considered unacceptable. Plagiarism will result in a 0 grade for the capstone assignment. Please be sure to cite sources throughout the report.

Total Points – 100 points = 100%, 90 points = 90%, 80 points = 80%, 70 points = 70%, 60 points = 60%, 50 points = 50%, 40 points = 40%, 30 points = 30%, 20 points = 20%, 10 point = 10%, 0 points = 0%

Rubric for Written Capstone Assignment's Individual Sections			
Domain	Proficiency Level		
	Below Expectations (0-60)	Meets Expectations (61-79)	Above Expectations (80-100)
Quality of Information	Information is plagiarized or directly copied from reference material, or no reference material is used. No citations are referenced. Reflections are descriptive: a reiteration of what was presented by instructor or in pre-readings read. Serious misinterpretations or not interpretation of the information is evident.	Information is summarized and not a reiteration of information provided by the instructor or in readings. Some references are sometimes made to readings or experiences. Provides less than full citations for works referenced.	Cites multiple readings and prior experiences and explains how these references extend and refine insights. Provides full citations for works referenced.
Interpretation	Presents information without any interpretations. Reflection is shallow and egocentric.	Interpretations of information are clear, but lack insight into application or meaning	Interprets information in accurate and insightful ways.
Organization	Information is disorganized.	Most information is logically presented and well organized.	All information is logically presented and well organized.
Mechanics	Three or more grammatical, spelling or punctuation errors.	1-2 grammatical, spelling or punctuation errors.	No grammatical, spelling or punctuation errors.

Appendix D: Final Written Capstone Project Rubric

100 possible points	Exemplary (10 points)	Accomplished (8 points)	Needs Improvement (5 points)
Specific Aims/Objectives (20%)	<ul style="list-style-type: none"> Clearly and concisely describe the objective(s) or aim(s) of the proposal 	<ul style="list-style-type: none"> Vaguely describe the proposal's objective(s) or aim(s). Used more than three sentences to describe the objective(s) 	<ul style="list-style-type: none"> Objectives or aims are not described in the proposal
Background (30%)	<ul style="list-style-type: none"> The proposal thoroughly summarized background information from the literature. The systematic review clearly described the most relevant studies on the topic of interest. The proposal states the gap that needs to be addressed and how the proposal's objective(s) can help fill the gap. 	<ul style="list-style-type: none"> Background section lack information on current literature. The systematic review is not up to date. The proposal does not clearly state the gap in the literature or how this proposal can benefit healthcare. 	<ul style="list-style-type: none"> Illogical background information. Does not describe the systematic review Does not describe a gap in the literature
Methods (30%)	<ul style="list-style-type: none"> Scientifically and logically described how the proposal can be conducted in detail. Students are not expected to use common frameworks or validated techniques from the ground literature. However, proposed methods should be measurable and logically address the objective(s.) All elements of the methods section are presented. Clearly describe at least 1 AI/ML methods proposed to use and assessment of the findings 	<ul style="list-style-type: none"> Most elements of the methods are presented. Most of the information is relevant and organized correctly. 	<ul style="list-style-type: none"> The paper does not provide a scientifically sound and reasonable method to address the objective(s) of the project.
Format, Grammar & References (10 %)	<ul style="list-style-type: none"> All information is logically presented and well organized. No grammatical, spelling or punctuation errors. Articles are clearly cited throughout the proposal. Demonstrate a thorough review of the literature (relevant number of references). References are listed at the end in a consistent format. 	<ul style="list-style-type: none"> Most information is logically presented and well organized. 1-2 grammatical, spelling or punctuation errors. Provided references but not thoroughly. Inconsistent format for citation The information cited is outdated 	<ul style="list-style-type: none"> Do not provide adequate references and citations of the literature. Does not meet the format requirement Information is disorganized Three or more grammatical, spelling or punctuation errors

Course|New for request 18744

Info

Request: PHC 6XXX Public Health Leadership

Description of request: This is a request to create a new 1-credit course that will teach the foundational content that is currently being taught in the MPH Capstone course PHC6940.

Submitter: April Oneal apriloneal3@ufl.edu

Created: 7/27/2023 12:51:56 PM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
PHC

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:
6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Intermediate

- 1000 level = *Introductory undergraduate*
- 2000 level = *Introductory undergraduate*
- 3000 level = *Intermediate undergraduate*
- 4000 level = *Advanced undergraduate*
- 5000 level = *Introductory graduate*
- 6000 level = *Intermediate graduate*
- 7000 level = *Advanced graduate*
- 4000/5000= *Joint undergraduate/graduate*
- 4000/6000= *Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Public Health Leadership

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Public Health Leadership

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

*Indicate all platforms through which the course is *<i>currently</i> <i>planned</i> to be delivered.**

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
1

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week *on average* throughout the duration of the course.

Response:
1

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This graduate course focuses on leadership and management within the Public Health field. Through completion of this course, students acquire knowledge and skills to grow as a public health professional, build collaborative professional relationships, work effectively as a team member, and lead public health efforts.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
None.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

Permission of the Master's of Public Health program.

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

Students will complete this course in the second year of their program, after they have completed most of the core public health coursework (which comprises 15 credits). This placement will ensure that MPH students have been introduced to the basic concepts that are built upon in this course, including leadership, building partnerships, and the public health workforce.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

1. Explain how various leadership styles/approaches influence problem solving, decision making, and system functioning.
2. Identify personal professional growth needs.
3. Identify resource management strategies appropriate for specified scenarios.
4. Demonstrate use of ethical principles in public health decision making.
5. Demonstrate professionalism in communication and conduct.
6. Apply leadership principles to address a public health issue.
7. Demonstrate basic negotiation and conflict management skills when addressing an

organization or community challenge.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Required: Rowitz, L. (2014). Public health leadership: Putting principles into practice (3rd edition). Jones & Bartlett. ISBN: 978-1-284-02173-8. (Available in multiple formats)

Recommended (Optional): Morgan, J. (2020.) The future leader: 9 skills and mindsets to succeed in the next decade. John Wiley & Sons, Inc.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Module 1 Introduction & Overview (Plus ProSeries Catch-up)

Module 2 Overview of Leadership Principles in Public Health

Module 3 Personal & Professional Leadership

Module 4 Application of Leadership

Module 5 Leadership & Preparedness

Module 6 Leadership Skills Part 1: Communication & Leadership Skills Part 2: People Development

Module 7 Leadership and Decision Making

Module 8 Leadership, Collaboration, and Change

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Group Work: Community Negotiation Case Study (10 pts): For this role play activity, students will practice learned negotiation techniques to address a major community health problems. This is a small group activity. Options for completing this assignment include:

1. Live Virtual Role Play (record and submit): Schedule a time to meet virtually and record your 'live' role play interaction. If you opt for this modality, you need to 1) review the instructions ahead of time; 2) schedule a time to meet; 3) meet at your scheduled time; 4) hit record and play your part! One person from your group should upload the recording to the Canvas assignment. No follow-up activity is necessary.

2. Discussion Board Role Play: Complete the assignment with your group using the discussion board prompts. Be sure to meet the posting deadlines and requirements as outlined in the assignment. Upon completion of the discussion board, write a reflection on the activity that identifies specific tactics that were used and/or tactics that could have been used.

Quizzes (30 pts): There are three quizzes in this course. Quiz 1 covers content from Modules 1, 2, & 3. Quiz 2 covers content from Module 4 & 5. Quiz 3 covers content from Modules 6, 7, & 8.

Quizzes include questions that cover all content presented in the denoted modules (i.e., readings, lectures/videos, and supplemental materials). While the quizzes are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every

concept covered on the quiz. Therefore, you should complete your readings and review of the lecture/video content from each module before taking the quiz. The quiz will offer feedback based on your answers and you will have two opportunities to take each quiz. However, questions are randomly selected from a pool of potential items, so it is unlikely that you will get the exact same questions twice. Each quiz is worth 10 points for a total of 30 points.

ProSeries (10 pts): Five of your required MPH Professional Series (ProSeries) sessions are required as part of this course (2 pts each). You must have attended the live session or completed the alternative assignment to receive credit. If you have not yet completed all sessions, to receive full credit you must complete it by the deadlines listed below.

- Writing Systematic Reviews (September 5, 2023)
- Professional Networking (September 5, 2023)
- Presenting for Public Health Day (October 3, 2023)
- Disability and Health (December 5, 2023)
- Introduction to Mixed Methods (December 5, 2023)

Other Module Activities (30 pts): All students are expected to make informed contributions through class activities. To do this, students will need to prepare appropriately by viewing all assigned video presentations, completing weekly readings, and completing other weekly activities. The majority of these points will come from activities embedded within the weekly modules. A small portion of these points will be assigned by the instructor based on your quality of interactions on discussion posts (going above and beyond vs. satisficing of the requirements), making timely posts, and positively contributing to the overall learning environment.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Julia Varnes

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:
Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:
Yes

University of Florida
College of Public Health and Health Professions
PHC 6XXX – Public Health Leadership (1 credit)
Class Meeting Information: Online Asynchronous
Fall 2023

Instructor: Julia R. Varnes, PhD, MPH, MCHES
Office: HPNP 4330
Office Hours: Wednesdays, 10:30am-11:30am; Thursdays, 9:30am-10:30am
Virtual Office: [Zoom link will be here]
Use this Zoom link when visiting my virtual office hours, or for any appointments we make.
Phone: 352-294-5382
Email: jrvarnes@ufl.edu
Preferred Course Communication: Email

Teaching assistants: None

Pre-requisites: Permission of the MPH Program

I. Course Overview

This graduate course focuses on leadership and management within the Public Health field. Through completion of this course, students acquire knowledge and skills to grow as a public health professional, build collaborative professional relationships, work effectively as a team member, and lead public health efforts.

Relation to Program Outcomes

CEPH Core Competencies covered in this course:

- CEPH D2-2.10. Explain basic principles and tools of budget and resource management.
- CEPH D2-2.16. Apply leadership and/or management principles to address a relevant health issue.
- CEPH D2-2.17. Apply negotiation and mediation skills to address organizational or community challenges.

Course Objectives

1. Explain how various leadership styles/approaches influence problem solving, decision making, and system functioning.
2. Identify personal professional growth needs.
3. Identify resource management strategies appropriate for specified scenarios.
4. Demonstrate use of ethical principles in public health decision making.
5. Demonstrate professionalism in communication and conduct.
6. Apply leadership principles to address a public health issue.
7. Demonstrate basic negotiation and conflict management skills when addressing an organization or community challenge.

II. DESCRIPTION OF COURSE CONTENT

Please see the last page of this syllabus for the course schedule and content outline.

Course Materials & Technology

This asynchronous course will use the Canvas LMS. If you experience technical difficulties, please contact the UF Help Desk (learning-support@ufl.edu; 352-392-HELP – select option 2).

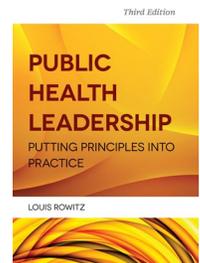
UF Internet (eduroam) is available at thousands of locations worldwide!

[UF students can access eduroam](#) (highspeed WiFi) for free with their GatorLink log-in credentials.

The eduroam network is fast and secure and has more than 10,000 wi-fi hotspots in 106 countries and territories worldwide. Many of these locations are in open spaces and/or large communal rooms, so you can get online while physically distancing and following CDC guidelines in an air-conditioned space. Access is available in rural areas, too! [Here's a link to all the eduroam sites.](#)

Required

- Rowitz, L. (2014). *Public health leadership: Putting principles into practice* (3rd edition). Jones & Bartlett. ISBN: 978-1-284-02173-8. (Available in multiple formats)



Recommended (Optional)

- Morgan, J. (2020.) *The future leader: 9 skills and mindsets to succeed in the next decade*. John Wiley & Sons, Inc.

Description of Course Assignments

Syllabus Quiz (1 pt): You must complete and pass (1/1) the syllabus quiz prior to accessing the remaining content.

Peer Introductions (5 pts): Associated with Module 1. The purpose of this activity is to provide space for you to introduce yourself to your peers (And learn about them!).

Leadership Journal (25 pts): At five different time points, students will use provided prompts to write a journal entry specific to the course content. Each entry is valued at 5 points. The journal entries will cover the topic of *Course Expectations, Leadership Styles, Team Building, Building Trust, and Planning for the Future*. Specific details are provided on each Canvas assignment.

The Leadership Toolkit Discussion Board (6 pts): Throughout this course, you will begin development of your own *Leadership Toolkit*. This assignment is designed to allow you to share your identified resources with your peers. You are required to contribute a minimum of three times (before three separate deadlines).

Group Work: Community Negotiation Case Study (10 pts): For this role play activity, students will practice learned negotiation techniques to address a major community health problem. This is a small group activity. Options for completing this assignment include:

1. **Live Virtual Role Play (record and submit):** Schedule a time to meet virtually and record your 'live' role play interaction. If you opt for this modality, you need to 1) review the instructions ahead of time; 2) schedule a time to meet; 3) meet at your scheduled time; 4) hit record and play your part! One person from your group should upload the recording to the Canvas assignment. No follow-up activity is necessary.
2. **Discussion Board Role Play:** Complete the assignment with your group using the discussion board prompts. Be sure to meet the posting deadlines and requirements as outlined in the assignment. Upon completion of the discussion board, write a reflection on the activity that identifies specific tactics that were used and/or tactics that could have been used.

Please note that one of your module activities is a discussion that allows you to communicate with your instructor and class peers on your preferences for completing this activity. Check Canvas for details.

Quizzes (33 pts): There are three quizzes in this course. Quiz 1 covers content from Modules 1, 2, & 3. Quiz 2 covers content from Module 4 & 5. Quiz 3 covers content from Modules 6, 7, & 8. Quizzes include questions that cover all content presented in the denoted modules (i.e., readings, lectures/videos, and supplemental materials). While the quizzes are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every concept covered on the quiz. Therefore, you should complete your readings and review of the lecture/video content from each module before taking the quiz. The quiz will offer feedback based on your answers and you will have two opportunities to take each quiz. However, questions are randomly selected from a pool of potential items, so it is unlikely that you will get the exact same questions twice. Each quiz is worth 11 points for a total of 33 points.

ProSeries (5 pts): Five of your required MPH Professional Series (ProSeries) sessions are required as part of this course (2 pts each). You must have attended the live session or completed the alternative assignment to receive credit. If you have not yet completed all sessions, to receive full credit you must complete it by the deadlines listed below.

- Writing Systematic Reviews (September 3, 2024)
- Professional Networking (September 3, 2024)
- Presenting for Public Health Day (October 1, 2024)
- Disability and Health (December 3, 2023)
- Introduction to Mixed Methods (December 3, 2024)

Other Module Activities (15 pts): All students are expected to make informed contributions through class activities. To do this, students will need to prepare appropriately by viewing all assigned video presentations, completing weekly readings, and completing other weekly activities. The majority of these points will come from activities embedded within the weekly modules. A small portion of these points will be assigned by the instructor based on your quality of interactions on discussion posts (going above and beyond vs. satisficing of the requirements), making timely posts, and positively contributing to the overall learning environment.

Overview of Assignments & Deadlines

ASSIGNMENTS	POINTS	DEADLINE
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Course Content Based Assignments		
1. Syllabus Quiz	1	August 27
2. Peer Introductions	5	August 27
3. Leadership Journal (four at 5 points each)	25	Sep 3, Sep 11, Oct 1, Nov 12, Dec 4
4. Leadership Toolkit Resources (three posts)	6	Varies
5. Community Negotiation Case Study	10	Multiple Deadlines
6. Quizzes (three at 11 points each)	33	Oct 2, Oct 30, Dec 9
7. ProSeries (five at 1 points each)	5	Multiple Deadlines
8. Module Discussions (three at 5 points each)	15	Multiple Deadlines
Total	100	

Grading Scale

Percent Earned	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0

Please be aware grades of C- (or below) is not acceptable for graduate students. Graduate students' GPA must be at least 3.0 in all graduate courses (≥ 5000 level). A grade of C will count toward the graduate degree only there are sufficient credits in graduate courses been earned with a B+ or higher.

Information on current UF grading policies can be found at: <https://catalog.ufl.edu/graduate/regulations/>

Expectations & Classroom Ground Rules:

- Complete all work as assigned.
- Take responsibility for the quality of the learning experience.
- Build on one another's comments/ideas; seek to understand others' perspectives.
- Respectfully provide and receive specific, solution-oriented feedback.
- Communicate with your instructor.

III. CLASS POLICIES

To ensure that we have a great semester, remember --

All transactions and relationships are enriched by courtesy:

Be considerate of one another during group work. All ideas have merit.

Be considerate of your classmates and the professor during class meetings by being attentive, power-off technology, and be prepared to fully participate in each class.

Accommodating Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, it requires that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability (or different-ability) that affects your learning, please reach out to the [Disabilities Resource Center \(DRC\)](#). And then share your accommodation letter with your instructor as quickly as possible to ensure you have access for the full semester.

If you did not register formally, but you know you have different learning, behavioral, or other need that might affect your performance in the course, tell me and I will help you.

Assignment Submission Policy: Be sure to review assignment descriptions in the course syllabus and in Canvas. Students are expected to do their best work and to turn in work on time. Some “deadlines” are self-imposed and will be determined by the specific assignment.

- Assignments are to be submitted via Canvas.
- Unless otherwise noted, assignments are due at 11:57pm on the date indicated. A grace period is allowed until 1:00am with no grade penalty; assignments submitted after 1am will be counted as late.
- *Late submitted assignments are subject to a 10% deduction in grade for every day it is late.* Please note that, for assignments submitted after the grace period, late deductions are marked from the original deadline (11:57pm).
- Please make efforts to turn assignments in early. **Make back-up copies of all your work**, as some assignments may not be returned and Canvas access may expire after the semester ends. All written work must be typed, unless otherwise indicated.
- I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these requests are being made.

Attendance: Be aware that online learning can present significant challenges, particularly to those who are not ‘self-starters’ or those who do not possess good time management skills. The online classroom is available to you 24 hours a day. Unlike traditional instructional settings in which each student gets the same class, the online setting means that every student will participate in the course that he/she chooses to experience. In theory, this type of instruction should be more adaptable to a variety of learning styles. The reality is, however, that some students seem unwilling (we believe all are able) to create and actively participate in their own virtual classroom. This often results in procrastination and low-quality performance. Recognizing that everyone learns differently, I will not prescribe the ‘best way’ to approach the course. You should note, however, that this course is not self-paced. You are expected to adhere to the class calendar and timeline I have developed for you (see Course Schedule below). I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these requests are being made.

Course Evaluations: I value your professional and respectful feedback on the quality of instruction in this course. Please complete the evaluation for this course via the Canvas ‘GatorEvals’ tab or through <https://ufl.bluera.com/ufl/>. You will be notified when the evaluation period opens. UF provides [guidance on how to give feedback in a professional and respectful manner](#). You can also view [public summaries of course and instructor evaluation results](#).

Extra Credit Policy: There is no extra credit and there are no extra credit assignments. Additionally, no points will be “given” at the end of the semester. University Policy: Asking for extra points after your course is completed is an **HONOR OFFENSE**.

Make-up Policy: If a student fails to submit a quiz on-time, they will be provided an opportunity to submit after the deadline provided that they have an acceptable reason for missing the deadline. Decisions to allow students to make-up quizzes/exams after the deadline will be made by the course instructor after consulting the university-wide attendance policies specified in the UF Graduate Catalog (<https://gradcatalog.ufl.edu/graduate/regulations/#:~:text=The%20only%20passing%20grades%20for,A%2D%20and%20A%2C%20respectively>)

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Netiquette, Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. I expect that students will show respect to their peers and instructor in all online communications. I will not tolerate improper language and disparaging comments; these actions will result in disciplinary action. See the following link for information on behaviors that are expected when students communicate with their peers and instructors using all available online communication features:

<http://teach.ufl.edu/wpcontent/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>.

Personal Integrity: I expect and assume that you will be honest with me in all aspects of your conduct regarding our course. In return, I will do the same with you. By formally registering for coursework at the University of Florida, you are bound by the Honor Pledge which states:

"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code." On all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

[The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. Violations of the Honor Code will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

Title IX: University of Florida has zero tolerance for sexual discrimination, harassment, assault/battery, dating violence, domestic violence, or stalking. Students are encouraged to report any experienced or witnessed occurrences to law enforcement and/or one of UF's Title IX Coordinators. Students can [report incidents](#) or learn more about their [rights and options](#) here. Or contact Student Conduct and Conflict Resolution at 202 Peabody Hall, 352-392-1261.

IV. HELPFUL CAMPUS RESOURCES

- [Counseling and Wellness Center](#)
Individual counseling, group counseling, and online resources are available to UF students at no charge. Visit the website or call 352-392-1575. If you are having a crisis, you can call anytime and request to speak to the counselor on call.
- [Dean of Students Office](#)
Do you need help resolving a conflict or would you like access to the student code of conduct? Visit the UF Dean of Students website for more information.
- [Disabilities Resource Center](#)
If you have a physical, learning, sensory or psychological disability, please visit the UF Disabilities Resource Center website for more information.
- [GatorWell Health Promotion services](#)

GatorWell provides health-related resources, information, and individual services to students. Recommended services: Wellness Coaching for Academic Success (virtual appointments available).

- [Online Library Help Desk](#)
The help desk is available to assist students with access to all UF Libraries resources.
- [UMatter, We Care](#)
Available for students who are experiencing personal life disruptions that may affect their academics. UMatter can help you identify resources and communicate with instructors on your behalf. 352-294-CARE (2273), umatter@ufl.edu
- [Alachua County Crisis Center](#)
Visit the website or call the hotline - 352-264-6789
- [Meridian Behavioral Healthcare](#), 352-374-5600

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu

V. Tentative Course Outline (additional guidance to be provided on the Weekly Module pages of Canvas)

Date	Week/Module	Module Title	Module Activities
Week 1 Aug 23-29	Module 1	Introduction & Overview (Plus ProSeries Catch-up)	Read “Start Here” Section, Syllabus Review supplemental materials as assigned M1 Video Lectures M1 Discussion: Peer Introduction
Week 2 Aug 30-Sep 5			Book Chapter 1, The Basics of Leadership Journal Exercise #1 – Expectations
Week 3 Sep 6-12	Module 2	Overview of Leadership Principles in Public Health	Book Chapter 2, Leadership Styles and Practices Chapter 3, Interface Between Management & Leadership M2 Video Lectures Journal Exercise #2: Leadership Styles & Practices
Week 4 Sep 13-19			Chapter 4, A Systems & Complexity Perspective Chapter 5, The Leadership Wheel & Organizational Change Supplemental materials as assigned on Canvas M2 Small Group Discussion: Shared Values Leadership Toolkit Discussion Board opens (multiple deadlines)
Week 5 Sep 20-26	Module 3	Personal & Professional Leadership	Book Chapter 6, The Five Levels of Leadership Supplemental materials as assigned on Canvas M3 Video Lectures M3 Discussion: Professional Goals Journal Exercise #3 Quiz 1 due October 2
Week 6 Sep 27-Oct 3			
Week 7 Oct 4-10	Module 4	Application of Leadership	Book Chapter 7, Building Infrastructure Book Chapter 8, The Changing Public Health System Book Chapter 11: Leadership and Policy Development Book Chapter 12: Public Health Law & Ethics Book Chapter 13: Leadership & Assurance Supplemental materials as assigned on Canvas M4 Video Lectures M4 Discussion: Public Health Infrastructure
Week 8 Oct 11-17			
Week 9 Oct 18-24	Module 5	Leadership & Preparedness	Chapter 15, Traditional & Crisis Public Health Leaders Chapter 16, The Social Capital Perspective Chapter 17, Public Health Preparedness & Response

Week 10 Oct 25-31			Supplemental materials as assigned on Canvas M5 Video Lectures M5 Discussion: Traditional & Crisis Leadership Quiz 2 due October 30
Week 11 Nov 1-Nov 7	Module 6	Leadership Skills Part 1: Communication	Book Chapter 18, Leadership & Communication Supplemental materials as assigned on Canvas M6a Video Lectures M6 Small Group Discussion: Scenarios on Trust & Concern
Week 12 Nov 8-14		Leadership Skills Part 2: People Development	Book, Chapter 19, Leadership and People Development Book Chapter 25: Mentoring, Coaching, and Training in Public Health Supplemental materials as assigned on Canvas M6b Video Lectures Journal Exercise #4: Building Trust
Week 13 Nov 15-21	Module 7	Leadership and Decision Making	Book Chapter 20, Leadership and the Planning Process Book Chapter 21, Leadership and Decision Making Supplemental materials as assigned on Canvas M7 Video Lectures Negotiation Case Study (Check Canvas for 3 deadlines)
Week 14 Nov 22-28			
Week 15 Nov 29-Dec 6	Module 8	Leadership, Collaboration, and Change	Book Chapter 22, Leadership & Community Engagement Book Chapter 24, Leadership and Change Supplemental materials as assigned on Canvas M8 Video Lectures M8 Activity: Community Engagement Journal Exercise #5: Planning for the Future
FE Week			Quiz 3 due Monday, December 9

Course|New for request 18495

Info

Request: PLP 6XXX Fastidious Bacteria and Plant Diseases

Description of request: Request for new course approval. The course title is Fastidious Bacteria and Plant Diseases

This class covers an overview of plant diseases caused by vascular-colonizing fastidious bacteria including mollicutes, *Candidatus liberibacter* spp, and *Xylella fastidiosa*, and their classification, biology, symptomatology, epidemiology, transmission, plant responses, insect-vector interaction, and strategies for their management.

Submitter: Nabil Killiny nabilkilliny@ufl.edu

Created: 9/21/2023 11:50:26 AM

Form version: 6

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

PLP

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Advanced

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Fastidious Bacteria and Plant Diseases

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Plant Fastidious Bacteria

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus, Off-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Fall

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:

Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:

3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:

This advanced graduate course provides in depth explanations of the complicated and varied cycles of plant diseases caused by insect transmitted, vascular-colonizing fastidious bacteria including mollicutes, Candidatus Liberibacters, and Xylella fastidiosa, including their classification, biology, symptomatology, epidemiology, transmission, plant responses, insect-vector interactions, and management strategies.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

None

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The economic importance of vector-borne fastidious bacterial diseases has increased dramatically in the last few decades due to the fast spread and challenge of eradicating them. Having a third party (the vector) in the pathosystem increases the difficulty of disease control. Understanding the mechanisms underpinning plant host colonization and insect transmission will certainly help in designing reliable control strategies in the future.

The overall goal of this course is for students to learn about both endemic and exotic vector-borne diseases caused by fastidious bacteria and the biochemical and molecular interactions among the bacteria, the host plant, and the insect vector.

The course content for this class is divided into five learning modules including i. Characterization of fastidious vascular-colonizing plant pathogenic bacteria, ii-Diseases caused by Mollicutes (spiroplasmas and phytoplasmas), iii-Diseases caused by ‘Ca. Liberibacter spp’, iv-Diseases caused by Xylella fastidiosa, v- Questions for open discussion.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

- Define and recognize plant diseases caused by vascular-colonizing fastidious bacteria.
- Categorize and characterize the classification of vascular-colonizing fastidious bacteria.
- Recall and explain the plant responses to vascular-colonizing fastidious bacteria.
- Differentiate and illustrate the disease components associated with insect transmission modes of plant bacterial pathogens.
- Discuss the role of insect vector biology and behavioral ecology in the spread of vector-borne diseases.
- Evaluate and propose potential control strategies to disrupt insect transmission and/or plant colonization.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

RECOMMENDED TEXTBOOKS:

- 1- Phytoplasma. (2010) by Phyllis G. Weintraub and Phil Jones, CAB International Press, Preston, UK.
- 2- Phytoplasmas: Plant Pathogenic Bacteria – Books I-III (2019); Eds. Rao, Beraccini, Fiore, Weintraub & Liefting; Springer Nature, Singapore.
- 3- Mollicutes and Diseases. (2004) by Shubhrata R. Mishra, Discover Publishing House, Inc, New Delhi-110002.
- 4- Insect Vectors and Plant Pathogens. (2018) by N. S. Butter, CRC Press, Inc, Taylor & Francis Group, New York.

READING LIST:

Spiroplasmas

Bendix C, Lewis JD. The enemy within: phloem-limited pathogens. *Mol Plant Pathol.* 2018 Jan;19(1):238-254.

Bolaños LM, Servín-Garcidueñas LE, Martínez-Romero E. Arthropod-Spiroplasma relationship in the genomic era. *FEMS Microbiol Ecol.* 2015 Feb;91(2):1-8.

Bové JM, Renaudin J, Saillard C, Foissac X, Garnier M. *Spiroplasma citri*, a plant pathogenic mollicute: relationships with its two hosts, the plant and the leafhopper vector. *Annu Rev Phytopathol.* 2003;41:483-500. doi: 10.1146/annurev.phyto.41.052102.104034.

Takahashi D, Fujiwara I, Sasajima Y, Narita A, Imada K, Miyata M. ATP- dependent polymerization dynamics of bacterial actin proteins involved in *Spiroplasma* swimming. *Open Biol.* 2022 Oct;12(10):220083.

Trachtenberg S. Shaping and moving a spiroplasma. *J Mol Microbiol Biotechnol.* 2004;7(1-2):78-87.

Phytoplasmas

Bertaccini A, Arocha-Rosete Y, Contaldo N, Duduk B, Fiore N, Montano HG, Kube M, Kuo CH, Martini M, Oshima K, Quaglino F, Schneider B, Wei W, Zamorano A. Revision of the 'Candidatus *Phytoplasma*' species description guidelines. *Int J Syst Evol Microbiol.* 2022 Apr;72(4).

Ermacora P, Osler R. Symptoms of Phytoplasma Diseases. *Methods Mol Biol.* 2019;1875:53-67.

Ji X, Gai Y. Phytoplasma proteomic analysis. *Methods Mol Biol.* 2013;938:339-49.

Kube M, Mitrovic J, Duduk B, Rabus R, Seemüller E. Current view on phytoplasma genomes and encoded metabolism. *ScientificWorldJournal.* 2012; 2012:185942.

Nair S, Manimekalai R. Phytoplasma diseases of plants: molecular diagnostics and way forward. *World J Microbiol Biotechnol.* 2021 May 19;37(6):102.

Pagliari L, Chucho J, Bosco D, Thiéry D. Phytoplasma Transmission: Insect Rearing and Infection Protocols. *Methods Mol Biol.* 2019;1875:21-36.

Sugio A, Hogenhout SA. The genome biology of phytoplasma: modulators of plants and insects. *Curr Opin Microbiol.* 2012 Jun;15(3):247-54.

Sugio A, MacLean AM, Kingdom HN, Grieve VM, Manimekalai R, Hogenhout SA. Diverse targets of phytoplasma effectors: from plant development to defense against insects. *Annu Rev*

Phytopathol. 2011;49:175-95.

Tomkins M, Kliot A, Marée AF, Hogenhout SA. A multi-layered mechanistic modelling approach to understand how effector genes extend beyond phytoplasma to modulate plant hosts, insect vectors and the environment. *Curr Opin Plant Biol.* 2018 Aug;44:39-48.

Liberibacters

Blaustein RA, Lorca GL, Teplitski M. Challenges for Managing Candidatus *Liberibacter* spp. (Huanglongbing Disease Pathogen): Current Control Measures and Future Directions. *Phytopathology.* 2018 Apr;108(4):424-435.

Killiny N. Generous Hosts: 'Candidatus *Liberibacter asiaticus*' Growth in Madagascar Periwinkle (*Catharanthus roseus*) Highlights Its Nutritional Needs. *Phytopathology.* 2022 Jan;112(1):89-100.

Killiny N. Generous hosts: What makes Madagascar periwinkle (*Catharanthus roseus*) the perfect experimental host plant for fastidious bacteria? *Plant Physiol Biochem.* 2016 Dec;109:28-35.

Killiny N. Made for each other: Vector-Pathogen Interfaces in the Huanglongbing Pathosystem. *Phytopathology.* 22 Jan;112 (1):26-43.

Mishra S, Ghanim M. Interactions of *Liberibacter* Species with Their Psyllid Vectors: Molecular, Biological and Behavioural Mechanisms. *Int J Mol Sci.* 2022 Apr 5;23(7):4029.

Pandey SS, Hendrich C, Andrade MO, Wang N. Candidatus *Liberibacter*: From Movement, Host Responses, to Symptom Development of Citrus Huanglongbing. *Phytopathology.* 2022 Jan;112(1):55-68.

Pierson EA, Cubero J, Roper C, Brown JK, Bock CH, Wang N. 'Candidatus *Liberibacter*' Pathosystems at the Forefront of Agricultural and Biological Research Challenges. *Phytopathology.* 2022 Jan;112(1):7-10.

Prager SM, Cohen A, Cooper WR, Novy R, Rashed A, Wenninger EJ, Wallis C. A comprehensive review of zebra chip disease in potato and its management through breeding for resistance/tolerance to 'Candidatus *Liberibacter solanacearum*' and its insect vector. *Pest Manag Sci.* 2022 Sep;78(9):3731-3745.

Tabachnick WJ. *Diaphorina citri* (Hemiptera: Liviidae) Vector Competence for the Citrus Greening Pathogen 'Candidatus *Liberibacter Asiaticus*'. *J Econ Entomol.* 2015 Jun;108(3):839-48.

Wang N, Pierson EA, Setubal JC, Xu J, Levy JG, Zhang Y, Li J, Rangel LT, Martins J Jr. The Candidatus *Liberibacter*-Host Interface: Insights into Pathogenesis Mechanisms and Disease Control. *Annu Rev Phytopathol.* 2017 Aug 4;55:451-482.

Yang C, Ancona V. An Overview of the Mechanisms Against "Candidatus *Liberibacter asiaticus*": Virulence Targets, Citrus Defenses, and Microbiome. *Front Microbiol.* 2022 Mar 10;13:850588.

Xylella fastidiosa

Almeida RPP, De La Fuente L, Koebnik R, Lopes JRS, Parnell S, Scherm H. Addressing the New Global Threat of *Xylella fastidiosa*. *Phytopathology.* 2019 Feb;109(2):172-174.

Bucci EM. *Xylella fastidiosa*, a new plant pathogen that threatens global farming: Ecology, molecular biology, search for remedies. *Biochem Biophys Res Commun.* 2018 Jul 12;502(2):173-182.

Castro C, DiSalvo B, Roper MC. *Xylella fastidiosa*: A reemerging plant pathogen that threatens crops globally. *PLoS Pathog.* 2021 Sep 9;17(9):e1009813.

Chatterjee S, Almeida RP, Lindow S. Living in two worlds: the plant and insect lifestyles of *Xylella fastidiosa*. *Annu Rev Phytopathol.* 2008;46:243-71.

Farigoule P, Chartois M, Mesmin X, Lambert M, Rossi JP, Rasplus JY, Cruaud A. Vectors as Sentinels: Rising Temperatures Increase the Risk of *Xylella fastidiosa* Outbreaks. *Biology (Basel).* 2022 Aug 31;11(9):1299.

Landa BB, Saponari M, Feitosa-Junior OR, Giampetruzzi A, Vieira FJD, Mor E, Robatzek S. *Xylella fastidiosa*'s relationships: the bacterium, the host plants, and the plant microbiome. *New Phytol.* 2022 Jun;234(5):1598-1605.

Pavlovic TV, Ordevic D. "Xylella is the Enemy that Must be Fought": Representations of the *X. fastidiosa* Bacterium in the Media Discourse. *Corpus Pragmat.* 2022;6(4):291-306.

Rapicavoli J, Ingel B, Blanco-Ulate B, Cantu D, Roper C. *Xylella fastidiosa*: an examination of a re-emerging plant pathogen. *Mol Plant Pathol.* 2018 Apr;19(4):786-800.

Roper C, Castro C, Ingel B. *Xylella fastidiosa*: bacterial parasitism with hallmarks of commensalism. *Curr Opin Plant Biol.* 2019 Aug;50:140-147.

Sicard A, Zeilinger AR, Vanhove M, Schartel TE, Beal DJ, Daugherty MP, Almeida RPP. *Xylella fastidiosa*: Insights into an Emerging Plant Pathogen. *Annu Rev Phytopathol.* 2018 Aug 25;56:181-202.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Course lecture schedule – Fall 2024

Module I: Characterization of fastidious vascular-colonizing plant pathogenic bacteria

August 22 Introduction to plant vascular-colonizing bacteria (genetic variation but having similar lifestyles)

- Cause similar plant diseases
- Restricted to the vascular system
- Transmitted by hemipteran vectors
- Fastidious growth in artificial media

August 23 Pathogenesis and plant responses Responses to phloem-colonizing bacteria

August 29 Pathogenesis and plant responses Responses to Xylem-colonizing bacteria

August 30 Mechanism of insect vector transmission Modes of transmission: Circulation, Multiplication, and Persistence

September 5 Mechanism of insect vector transmission Molecular and biochemical bases of transmission process: Bacterial membrane proteins, Insect receptors in gut and salivary glands

September 6 Factors affecting the transmission efficiency

September 12 Role of exopolysaccharides/lipopolysaccharides/extracellular polymeric substances in plant pathogenicity and insect transmission Case study i - *Xylella fastidiosa*

September 13 Role of exopolysaccharides/lipopolysaccharides/extracellular polymeric substances in plant pathogenicity and insect transmission Case study ii- '*Ca. L. asiaticus*'

September 19 Role of quorum sensing in plant pathogenicity and insect transmission Case study i - *Xylella fastidiosa* (diffusible signaling factor, DSF)

September 20 Role of quorum sensing in plant pathogenicity and insect transmission Case study ii - '*Ca. L. asiaticus*' (the two components quorum sensing, LuxR- AHL)

September 26 Med-term exam

Module II: Diseases Caused by Spiroplasmas

September 27 Evolution, phylogeny, taxonomy, and morphological properties of Spiroplasmas

October 3 Case studies; epidemiology, symptoms, host range, insect transmission, and control strategies i- Citrus stubborn (*S. citri*) ii- Corn stunt (*S. kunkellii*) iii- Periwinkle dwarfing (*S. phoeniceum*)

October 4 Quiz 1 and Paper discussion

Module III: Diseases caused by Phytoplasmas

October 10 Evolution, phylogeny, taxonomy, and morphological properties of phytoplasmas

October 11 Case studies; epidemiology, symptoms, host range, insect transmission, and control strategies

- i- Phytoplasma diseases of fruit crops: Ex. Flavescence drée and Stolbur in grape, Western X in cherries ii- Phytoplasma diseases of vegetable crops: Ex. Witches broom, little leaf, flat stem iii- Phytoplasma diseases of ornamental and medical plants: Ex. Aster yellow, virescence and phyllody

October 17 Quiz 2 and Paper Discussion

Module IV: Diseases Caused by Liberibacters October 18 Evolution, phylogeny, taxonomy, and morphological properties of '*Ca. Liberibacter spp*'

October 24 Case studies; epidemiology, symptoms, host range, control strategies

- i- Citrus Greening ('*Ca. L. asiaticus*') ii- Potato zebra chip ('*Ca. L. solanacearum*')

October 25 Quiz 3 and Paper discussion

Module V: Diseases caused by *Xylella fastidiosa* October 31 Evolution, phylogeny, taxonomy, and morphological properties of *Xylella fastidiosa*
 November 1 Case studies; epidemiology, symptoms, host range, insect transmission, and control strategies i- Pierce's disease of grapes ii- Olive quick decline syndrome iii- Citrus variegated chlorosis iv- Leaf scorch/Golden Death of Almond

November 7 Quiz 4 and Paper Discussion

Module VI: Questions for open discussion, students should prepare in advance.

November 8 What makes periwinkle an excellent experimental host for fastidious bacteria? Why can fastidious bacteria be easily transmitted by dodder and grafting?

November 14 Why are all fastidious bacteria insect-transmitted? Can we block the insect transmission of fastidious bacteria? If so, would the strategies be different between phloem-restricted and xylem-restricted bacteria?

November 15 Quiz 5 and Paper discussion

November 21 Does natural competence play a role in the evolution and diversity of mollicutes, 'Ca. *Liberibacter* spp', and *Xylella fastidiosa*?

November 22 General Discussion

November 28 Holiday

November 29 Holiday

December 5 Reading day

December 6 Reading day

December 12 Final exam

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

GRADE: Grading is based on four quizzes, a term paper, participation in discussion sessions, a midterm exam, and a cumulative final exam. Grades will be based on the following assessments:

Component	Points
Quiz 1	20
Quiz 2	20
Quiz 3	20
Quiz 4	20
Quiz 5	20
Mid-term Exam	200
Discussion Sessions	100
Term paper	100
Final Exam (Comprehensive)	300
TOTAL	800

Exams and quizzes: There will be two exams (a mid-term and final). The mid-term exam is not comprehensive (200 points). The final Exam is comprehensive (300 points) in Fifield building and libraries of RECs in Gainesville and the Centers' teaching rooms. Additionally, there will be five quizzes (20 points each) covering the four modules. Quizzes would be given online in class and cameras would need to be turned on and the midterm and final exams would be given in person in the classroom in Gainesville and at the RECs with an appropriate proctor.

Term paper: Every student will need to write a term paper about a vector-borne disease of his/her choice. The term-paper should discuss the disease description, pathogen life cycle, vector life

cycle, transmission mode, and pathogen-vector interactions. 100 points are assigned for the term-paper.

Discussion Sessions: Discussion sessions are scheduled during several lectures. 100 points will be assigned to the discussion activity. 50 points for peer review and presenting a research paper and 50 points for participation in discussions.

Grade Scale: Final grades will be designated according to the following grade scale. This course uses the grade book function in Canvas for record-keeping and grade calculation; grades will be calculated on a percentage basis, but total course points associated with each percentage are given here for your convenience.

For information on current UF policies for assigning grade points, see:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Letter Grade

	Percentage	Points
A	92.00	– 100 736 – 800
A-	90.00	– 91.99 720 – 735
B+	88.00	– 89.99 704 – 719
B	82.00	– 87.99 656 – 703
B-	80.00	– 81.99 640 – 655
C+	78.00	– 79.99 624 – 639
C	72.00	– 77.99 576 – 623
C-	70.00	– 71.99 560 – 575
D+	68.00	– 69.99 544 – 559
D	62.00	– 67.99 496 – 543
D-	60.00	– 61.99 480 – 495
E	00.00	– 59.99 000 – 479

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Nabil Killiny

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:
Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.*

Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

PLP 6###: Fastidious Bacteria and Plant Diseases

(Fall 2024)

COURSE INSTRUCTOR: Dr. Nabil Killiny

Office: Room 5 building 7103, Citrus Research and Education Center, Lake Alfred

Phone: 863-956-8833

Email: nabilkilliny@ufl.edu

Office Hours: Mondays and Tuesdays 10:00 am-12:00 am, or by appointment

COURSE: Fastidious Bacteria and Plant Diseases

PREREQUISITE: None

CREDITS: 3

CLASS TIME: Thursday @ 9:35-11:30 am and Friday @9:35-10:25 am

LOCATION: Ben Griffin Building, CREC, Lake Alfred, and via Zoom to Dept. Plant Pathology at Gainesville and other RECs

COURSE DESCRIPTION:

This advanced graduate course explores in depth explanations of the complicated and varied cycles of plant diseases caused by insect-transmitted, vascular-colonizing fastidious bacteria including mollicutes, *Candidatus Liberibacters*, and *Xylella fastidiosa*, including their classification, biology, symptomatology, epidemiology, transmission, plant responses, insect-vector interactions, and management strategies.

RECOMMENDED TEXTBOOKS:

- 1- Phytoplasmas. (2010) by Phyllis G. Weintraub and Phil Jones, CAB International Press, Preston, UK.
- 2- Phytoplasmas: Plant Pathogenic Bacteria – Books I-III (2019); Eds. Rao, Beraccini, Fiore, Weintraub & Liefting; Springer Nature, Singapore.

- 3- Mollicutes and Diseases. (2004) by Shubhrata R. Mishra, Discover Publishing House, Inc, New Delhi-110002.
- 4- Insect Vectors and Plant Pathogens. (2018) by N. S. Butter, CRC Press, Inc, Taylor & Francis Group, New York.

READING LIST:

Spiroplasmas

- Bendix C, Lewis JD. The enemy within: phloem-limited pathogens. *Mol Plant Pathol*. 2018 Jan;19(1):238-254.
- Bolaños LM, Servín-Garcidueñas LE, Martínez-Romero E. Arthropod-Spiroplasma relationship in the genomic era. *FEMS Microbiol Ecol*. 2015 Feb;91(2):1-8.
- Bové JM, Renaudin J, Saillard C, Foissac X, Garnier M. *Spiroplasma citri*, a plant pathogenic mollicute: relationships with its two hosts, the plant and the leafhopper vector. *Annu Rev Phytopathol*. 2003;41:483-500. doi: 10.1146/annurev.phyto.41.052102.104034.
- Takahashi D, Fujiwara I, Sasajima Y, Narita A, Imada K, Miyata M. ATP- dependent polymerization dynamics of bacterial actin proteins involved in *Spiroplasma* swimming. *Open Biol*. 2022 Oct;12(10):220083.
- Trachtenberg S. Shaping and moving a spiroplasma. *J Mol Microbiol Biotechnol*. 2004;7(1-2):78-87.

Phytoplasmas

- Bertaccini A, Arocha-Rosete Y, Contaldo N, Duduk B, Fiore N, Montano HG, Kube M, Kuo CH, Martini M, Oshima K, Quaglino F, Schneider B, Wei W, Zamorano A. Revision of the 'Candidatus Phytoplasma' species description guidelines. *Int J Syst Evol Microbiol*. 2022 Apr;72(4).
- Ermacora P, Osler R. Symptoms of phytoplasma diseases. *Methods Mol Biol*. 2019;1875:53-67.
- Ji X, Gai Y. Phytoplasma proteomic analysis. *Methods Mol Biol*. 2013;938:339-49.
- Kube M, Mitrovic J, Duduk B, Rabus R, Seemüller E. Current view on phytoplasma genomes and encoded metabolism. *Scientific World Journal*. 2012; 2012:185942.
- Nair S, Manimekalai R. Phytoplasma diseases of plants: molecular diagnostics and way forward. *World J Microbiol Biotechnol*. 2021 May 19;37(6):102.
- Pagliari L, Chucho J, Bosco D, Thiéry D. Phytoplasma transmission: Insect rearing and infection protocols. *Methods Mol Biol*. 2019;1875:21-36.
- Sugio A, Hogenhout SA. The genome biology of phytoplasma: modulators of plants and insects. *Curr Opin Microbiol*. 2012 Jun;15(3):247-54.
- Sugio A, MacLean AM, Kingdom HN, Grieve VM, Manimekalai R, Hogenhout SA. Diverse targets of phytoplasma effectors: from plant development to defense against insects. *Annu Rev Phytopathol*. 2011;49:175-95.
- Tomkins M, Kliot A, Marée AF, Hogenhout SA. A multi-layered mechanistic modelling approach to understand how effector genes extend beyond phytoplasma to modulate plant hosts, insect vectors and the environment. *Curr Opin Plant Biol*. 2018 Aug;44:39-48.

Liberibacters

- Blaustein RA, Lorca GL, Teplitski M. Challenges for managing *Candidatus Liberibacter* spp. (Huanglongbing disease pathogen): current control measures and future directions. *Phytopathology*. 2018 Apr;108(4):424-435.
- Killiny N. Generous hosts: ' *Candidatus Liberibacter asiaticus*' growth in Madagascar periwinkle (*Catharanthus roseus*) highlights its nutritional needs. *Phytopathology*. 2022 Jan;112(1):89-100.
- Killiny N. Generous hosts: What makes Madagascar periwinkle (*Catharanthus roseus*) the perfect experimental host plant for fastidious bacteria? *Plant Physiol Biochem*. 2016 Dec;109:28-35.

- Killiny N. Made for each other: Vector–Pathogen Interfaces in the Huanglongbing pathosystem. *Phytopathology*. 2022 Jan;112(1):26-43.
- Mishra S, Ghanim M. Interactions of *Liberibacter* Species with their psyllid vectors: molecular, biological and behavioural mechanisms. *Int J Mol Sci*. 2022 Apr 5;23(7):4029.
- Pandey SS, Hendrich C, Andrade MO, Wang N. *Candidatus Liberibacter*: from movement, host responses, to symptom development of citrus huanglongbing. *Phytopathology*. 2022 Jan;112(1):55-68.
- Pierson EA, Cubero J, Roper C, Brown JK, Bock CH, Wang N. '*Candidatus Liberibacter*' pathosystems at the forefront of agricultural and biological research challenges. *Phytopathology*. 2022 Jan;112(1):7-10.
- Prager SM, Cohen A, Cooper WR, Novy R, Rashed A, Wenninger EJ, Wallis C. A comprehensive review of zebra chip disease in potato and its management through breeding for resistance/tolerance to '*Candidatus Liberibacter solanacearum*' and its insect vector. *Pest Manag Sci*. 2022 Sep;78(9):3731-3745.
- Tabachnick WJ. *Diaphorina citri* (Hemiptera: Liviidae) Vector competence for the citrus greening pathogen '*Candidatus Liberibacter asiaticus*'. *J Econ Entomol*. 2015 Jun;108(3):839-48.
- Wang N, Pierson EA, Setubal JC, Xu J, Levy JG, Zhang Y, Li J, Rangel LT, Martins J Jr. The *Candidatus Liberibacter*-host interface: insights into pathogenesis mechanisms and disease control. *Annu Rev Phytopathol*. 2017 Aug 4;55:451-482.
- Yang C, Ancona V. An overview of the mechanisms against "*Candidatus Liberibacter asiaticus*": virulence targets, citrus defenses, and microbiome. *Front Microbiol*. 2022 Mar 10;13:850588.
- Xylella fastidiosa***
- Almeida RPP, De La Fuente L, Koebnik R, Lopes JRS, Parnell S, Scherm H. Addressing the new global threat of *Xylella fastidiosa*. *Phytopathology*. 2019 Feb;109(2):172-174.
- Bucci EM. *Xylella fastidiosa*, a new plant pathogen that threatens global farming: ecology, molecular biology, search for remedies. *Biochem Biophys Res Commun*. 2018 Jul 12;502(2):173-182.
- Castro C, DiSalvo B, Roper MC. *Xylella fastidiosa*: A reemerging plant pathogen that threatens crops globally. *PLoS Pathog*. 2021 Sep 9;17(9):e1009813.
- Chatterjee S, Almeida RP, Lindow S. Living in two worlds: the plant and insect lifestyles of *Xylella fastidiosa*. *Annu Rev Phytopathol*. 2008;46:243-71.
- Farigoule P, Chartois M, Mesmin X, Lambert M, Rossi JP, Rasplus JY, Cruaud A. Vectors as sentinels: rising temperatures increase the risk of *Xylella fastidiosa* outbreaks. *Biology (Basel)*. 2022 Aug 31;11(9):1299.
- Landa BB, Saponari M, Feitosa-Junior OR, Giampetruzzi A, Vieira FJD, Mor E, Robatzek S. *Xylella fastidiosa*'s relationships: the bacterium, the host plants, and the plant microbiome. *New Phytol*. 2022 Jun;234(5):1598-1605.
- Pavlović TV, Đorđević D. "*Xylella* is the enemy that must be fought": representations of the *X. Fastidiosa* bacterium in the media discourse. *Corpus Pragmat*. 2022;6(4):291-306.
- Rapicavoli J, Ingel B, Blanco-Ulate B, Cantu D, Roper C. *Xylella fastidiosa*: an examination of a re-emerging plant pathogen. *Mol Plant Pathol*. 2018 Apr;19(4):786-800.
- Roper C, Castro C, Ingel B. *Xylella fastidiosa*: bacterial parasitism with hallmarks of commensalism. *Curr Opin Plant Biol*. 2019 Aug;50:140-147.
- Sicard A, Zeilinger AR, Vanhove M, Schartel TE, Beal DJ, Daugherty MP, Almeida RPP. *Xylella fastidiosa*: Insights into an Emerging Plant Pathogen. *Annu Rev Phytopathol*. 2018 Aug 25;56:181-202.

BACKGROUND INFORMATION:

The fastidious plant bacteria cause various economically important diseases. These bacteria are phylogenetically diverse and are grouped together because of *i-* their association with similar plant diseases, *ii-* their endophytic habitat within plants (restricted to phloem or the xylem of the vascular system), *iii-* their transmission by insect vectors from the order Hemiptera and *iv-* their fastidious nature. These bacteria include the cell wall-less bacteria, mollicutes (phytoplasmas and spiroplasmas), the alpha-proteobacteria '*Candidatus Liberibacter spp.*', and the gamma-proteobacteria *Xylella fastidiosa*.

Plant responses to vascular-limited bacteria include phloem or xylem dysfunction. Mollicutes and '*Ca. Liberibacter spp.*' multiply within phloem sieve elements and utilize a high quantity of photosynthesis products. In addition, the mollicutes and '*Ca. Liberibacter spp.*' induce blockage of the phloem by callose deposits, which interrupts or inhibits nutrient transportation. *Xylella fastidiosa* causes xylem blockage by attachment and forms a biofilm in xylem vessels. The bacteria also alter the phytohormonal balance causing leaf, stem and flower deformities, phyllody, and virescence. In general, the common yellowing symptoms of these bacteria reflect physiological changes and effects on metabolic pathways.

The insect transmission of mollicutes and '*Ca. Liberibacter spp.*', involves propagation, circulation, and persistence within the vector body. The growth of plant-pathogenic bacteria in the vector's hemolymph indicates that the hemolymph contains all the necessary nutrients for bacterial growth. Thus, insect-transmitted plant-pathogenic bacteria may alter their vectors' fitness, survival, behavior, and metabolism. In addition to nutrients, bacteria can acquire energetic nucleotides, such as ATP, from their vectors. In contrast, *Xylella fastidiosa* is not circulative within the vector body but localizes only in the foregut where it multiplies and forms a biofilm.

The interactions between the pathogenic bacteria and their host plant are limiting factors for insect vector transmission. Vector-plant interactions including attraction, preference, host specificity, and feeding sites are also key factors relevant to transmission. The availability of bacterial cells to the vector in the host tissues is essential for the acquisition step. In addition, in certain cases, the bacteria possess different transcriptomic phase in plants and only one phase is transmissible. In brief, the interactions should be well studied to achieve successful transmission.

The course will discuss all aspects of diseases caused by vascular-colonizing fastidious bacteria and will include several study cases. Students will actively participate in lectures by reading and evaluating publications prior to the lectures. There will be two lectures per week, a two-hour lecture about a main topic and a one-hour lecture for discussion or guest lecture. Guest lectures will be given by renowned professors and researchers. Some guest lectures will be in pre-recorded video format. One research paper on a vector-borne bacterial disease (of the student's choice) is required for course completion.

LEARNING OBJECTIVES: The economic importance of vector-borne fastidious bacterial diseases has increased dramatically in the last few decades due to the fast spread and challenge of eradicating them. Having a third party (the vector) in the pathosystem increases the difficulty of disease control, but also provides opportunities. Understanding the mechanisms underpinning plant host colonization and insect transmission will certainly help in designing reliable control strategies.

The overall goal of this course is for students to learn about both endemic and exotic vector-borne diseases caused by fastidious bacteria and the biochemical and molecular interactions among the bacteria, the host plant, and the insect vector. By the end of this course, the student should be able to:

- Define and recognize plant diseases caused by vascular-colonizing fastidious bacteria.
- Categorize and characterize the classification of vascular-colonizing fastidious bacteria.
- Recall and explain the plant responses to vascular-colonizing fastidious bacteria.
- Differentiate and illustrate the disease components associated with insect transmission modes of plant bacterial pathogens.
- Discuss the role of insect vector biology and behavioral ecology in the spread of vector-borne diseases.
- Evaluate and propose potential control strategies to disrupt insect transmission and/or plant colonization.

LEARNING MODULES: The course content for this class is divided into five learning modules including i. Characterization of fastidious vascular-colonizing plant pathogenic bacteria, ii- Diseases caused by spiroplasmas, iii-Diseases caused by phytoplasmas, iv-Diseases caused by '*Ca. Liberibacter spp*', v-Diseases caused by *Xylella fastidiosa*, vi- Questions for open discussion.

Every module has a graded quiz after the completion of the module.

DISCUSSIONS: Students will participate in article discussions, occasionally. Briefs and discussion participation will be graded through a combination of peer review and instructor review.

GRADE: Grading is based on five quizzes, a term paper, participation in discussion sessions, a midterm exam, and a cumulative final exam. Grades will be based on the following assessments:

Component	Points
Quiz 1	20
Quiz 2	20
Quiz 3	20

Quiz 4	20
Quiz 5	20
Mid-term Exam	200
Discussion Sessions	100
Term paper	100
Final Exam (Comprehensive)	300
TOTAL	800

Exams and quizzes: There will be two exams (a mid-term [200 points] and final [300 points]). The exams will be proctored live in Fifield building and libraries of RECs in Gainesville and the Centers' teaching rooms. Additionally, there will be five quizzes (20 points each) covering the five modules. Quizzes would be given online in class and cameras would need to be turned on and the midterm and final exams would be given in person in the classroom in Gainesville and at the RECs with an appropriate proctor.

Term paper: Every student will need to write a term paper about a vector-borne disease of his/her choice. The term-paper should discuss the disease description, pathogen life cycle, vector life cycle, transmission mode, and pathogen-vector interactions. 100 points are assigned for the term-paper.

Discussion Sessions: Discussion sessions are scheduled during several lectures. 100 points will be assigned to the discussion activity. 50 points for peer review and presenting a research paper and 50 points for participation in discussions.

Grading Scale: Final grades will be determined according to the following grading scale. This course uses the grade book function in Canvas for record-keeping and grade calculation; grades will be calculated on a percentage basis, but total course points associated with each percentage are given here for your convenience.

For information on current UF policies for assigning grade points, see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Letter Grade	Percentage	Points
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C+	78.00 – 79.99	624 – 639
C	72.00 – 77.99	576 – 623
C-	70.00 – 71.99	560 – 575
D+	68.00 – 69.99	544 – 559
D	62.00 – 67.99	496 – 543
D-	60.00 – 61.99	480 – 495
E	00.00 – 59.99	000 – 479

ATTENDANCE AND MAKE-UP WORK:

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:
<https://gradcatalog.ufl.edu/graduate/regulations/>.

For online course with recorded materials a statement informing students of privacy related issues such as:

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals.

Guidance on how to give feedback in a professional and respectful manner is available at:
<https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their

Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

ACADEMIC HONESTY

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Use of generative Artificial Intelligence tools such as ChatGPT is discouraged. However, when used as a tool for learning or studying, such as for improving English, providing clarity, generating ideas, or gathering general information on a topic, it is permitted. Written passages, mathematical models, or answers synthesized based on AI results should be attributed as such: "The author generated this text/model in part with GPT-3, GPT3.5 or GPT4 through ChatGPT or Bing, OpenAI's large-scale language generation model. Upon generating draft language, the author reviewed, edited, and revised the language to their own liking and takes ultimate responsibility for the content created."

Software Use and Copyright: All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. Students requesting classroom

accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,

<https://www.counseling.ufl.edu>

Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library & Wellness Coaching

- U Matter We Care, <https://www.umatter.ufl.edu/>
- Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.
- Student Success Initiative, <https://studentsuccess.ufl.edu>.

Student Complaints:

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.
- Online Course: <https://distance.ufl.edu/state-authorization-status/#student-complaint>

THE INSTRUCTOR RESERVES THE RIGHT TO CHANGE OR MODIFY INFORMATION PROVIDED IN THE SYLLABUS. CLASS ANNOUNCEMENTS SUPERSEDE SYLLABUS STATEMENTS

Course lecture schedule – Fall 2024

Module	Date	Topic	Items
Module I: Characterization of fastidious vascular-colonizing plant pathogenic bacteria	August 22	Introduction to plant vascular-colonizing bacteria (genetic variation but having similar lifestyles)	Cause similar plant diseases Restricted to the vascular system Transmitted by hemipteran vectors Fastidious growth in artificial media
	August 23	Pathogenesis and plant responses	Responses to phloem-colonizing bacteria
	August 29	Pathogenesis and plant responses	Responses to xylem-colonizing bacteria
	August 30	Mechanism of insect vector transmission	Modes of transmission: Circulation, Multiplication, and Persistence
	September 5	Mechanism of insect vector transmission	Molecular and biochemical bases of transmission process: Bacterial membrane proteins, Insect receptors in gut and salivary glands
	September 6	Factors affecting the transmission efficiency	
	September 12	Role of exopolysaccharides/lipopolysaccharides/ extracellular polymeric substances in plant pathogenicity and insect transmission	Case study i - <i>Xylella fastidiosa</i>
	September 13	Role of exopolysaccharides/lipopolysaccharides/ extracellular polymeric substances in plant pathogenicity and insect transmission	Case study ii- '<i>Ca. L. asiaticus</i>'
	September 19	Role of quorum sensing in plant pathogenicity and insect transmission	Case study i - <i>Xylella fastidiosa</i> (diffusible signaling factor, DSF)
	September 20	Role of quorum sensing in plant pathogenicity and insect transmission	Case study ii - '<i>Ca. L. asiaticus</i>' (the two components quorum sensing, LuxR-AHSL)
	September 26	Mid-term exam	
Module II: Diseases caused by Spiroplasmas	September 27	Evolution, phylogeny, taxonomy, and morphological properties of Spiroplasmas	
	October 3	Case studies; epidemiology, symptoms, host range, insect transmission, and control strategies	i- Citrus stubborn (<i>S. citri</i>) ii- Corn stunt (<i>S. kunkellii</i>) iii- Periwinkle dwarfing (<i>S. phoeniceum</i>)
	October 4	Quiz 1 and Paper discussion	
Module III: Diseases caused by Phytoplasmas	October 10	Evolution, phylogeny, taxonomy, and morphological properties of phytoplasmas	
	October 11	Case studies; epidemiology, symptoms, host range, insect transmission, and control strategies	i- Phytoplasma diseases of fruit crops: Ex. Flavescence drée and Stolbur in grape, Western X in cherries ii- Phytoplasma diseases of vegetable crops: Ex. Witches broom, little leaf, flat stem iii- Phytoplasma diseases of ornamental and medical plants: Ex.

			Aster yellow, virescence and phyllody
	October 17	Quiz 2 and Paper Discussion	
Module IV: Diseases caused by Liberibacters	October 18	Evolution, phylogeny, taxonomy, and morphological properties of ' <i>Ca. Liberibacter spp</i> '	
	October 24	Case studies ; epidemiology, symptoms, host range, control strategies	i- Citrus Greening (' <i>Ca. L. asiaticus</i> ') ii- Potato zebra chip (' <i>Ca. L. solanacearum</i> ')
	October 25	Quiz 3 and Paper discussion	
Module V: Diseases caused by <i>Xylella fastidiosa</i>	October 31	Evolution, phylogeny, taxonomy, and morphological properties of <i>Xylella fastidiosa</i>	
	November 1	Case studies ; epidemiology, symptoms, host range, insect transmission, and control strategies	i- Pierce's disease of grapes ii- Olive quick decline syndrome iii- Citrus variegated chlorosis iv- Leaf scorch/Golden Death of Almond
	November 7	Quiz 4 and Paper discussion	
Module VI: Questions for open discussion, students should prepare in advance. <i>Students need to prepare in advance</i>	November 8	What makes periwinkle an excellent experimental host for fastidious bacteria? Why can fastidious bacteria be easily transmitted by dodder and grafting?	
	November 14	Why are all fastidious bacteria insect-transmitted? Can we block the insect transmission of fastidious bacteria? If so, would the strategies be different between phloem-restricted and xylem-restricted bacteria?	
	November 15	Quiz 5 and Paper discussion	
	November 21	Does natural competence play a role in the evolution and diversity of mollicutes, ' <i>Ca. Liberibacter spp</i> ', and <i>Xylella fastidiosa</i> ?	
	November 22	General Discussion	
	November 28	Holiday	
	November 29	Holiday	
	December 5	Reading day	
	December 6	Reading day	
	December 12	Final exam	

Course|New for request 18531

Info

Request: REE 6XXX Law of Real Estate Transactions

Description of request: This is to request the creation of a graduate real estate law course, which is need for our Master of Science in Real Estate (MSRE) program).

Submitter: David Ling ling@ufl.edu

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Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
REE

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Intermediate

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Real Estate Law

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Real Estate Law

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Summer

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
2

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
4

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
The focus of this course is on the major legal concepts, principles, statutes, and contracts that regulate and govern the negotiation, financing and closing of real estate transactions. Both residential and commercial transactions will be discussed; however, the focus will be on commercial real estate. Emphasis will be on the legal aspects of a transaction: ownership of real property, contract law, types of conveyances, legal descriptions, surveys and plats, ad valorem taxation and financing.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

Acceptance to the Master of Science in Real Estate (MSRE) program or graduate standing.

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

An understanding of basic real estate law concepts by our Master of Science in Real Estate (MSRE) program is essential to their success as a real estate professional.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

By the end of this course, the student should be familiar with basic real estate law concepts, such as contracts, development, operations, and liability. The following are some specific knowledge and skills students will attain:

1. Be able to recognize and apply basic principles of law to various problems which real estate development, analysis, and operations professionals may face.
2. Consider ethical constructs in the legal and business environment.
3. Evaluate the roles and activities of real estate brokers and agents, lawyers, and other consulting professionals (e.g., lenders, accountants, insurers, association managers) in real estate transactions (including negotiations).
4. Evaluate the functions of real estate letters of intent, purchase and sales contracts, leases (numerous uses), and other transaction documents (e.g., easements, licenses, profits).

5. Evaluate the role and scope of due diligence (including private/public land use restrictions, surveys, zoning, environmental) in purchase and sale and lease transactions.
6. Evaluate the scope and process of real estate finance transactions (including basic tax matters), from loans through special assets workouts, bankruptcies, and foreclosures.
7. Evaluate the function and process of title insurance in real estate transactions.
8. Evaluate the function of property and liability insurance, and risk management, in real estate operations.
9. Understand the closing process, through pre-closing, closing, and post-closing activities.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

The expected required textbook is: Understanding Modern Real Estate Transactions (Fourth Edition), Johnson, Jr., Alex M., LexisNexis (ISBN 978-0-7698-4595-1)

Recommended but not required: The Checklist Manifesto, Gawande, Atul, Metropolitan Books/Henry Holt and Company (ISBN 978-0-8050-9174-8; or more recent edition)

Other required readings from readily available sources (e.g., internet) may be assigned during the course.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

This course will be taught during the six week Summer B term

Week 1:

Course overview; Regulation – brokerage & agency; Purchase and sales agreements

Week 2:

Due diligence; mortgage financing, special assets – workouts, bankruptcy, foreclosures, title insurance

Week 3:

Pre-closing, closing, post-closing, taxes; risk management & insurance, negotiations, letters of intent,
Mid-Term Examination

Week 4:

Easements, licenses, profits, & private land use restrictions, surveys, public land use restrictions & land use development, leases – overview; due diligence

Week 5

Retail, restaurant, office, build-to-suit leases, & ground leases, franchises;

Week 6

Negotiations, letters of intent, risk management & insurance
Final Examination

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

The following are the course grade/points range break-points:

Grade Weighted %

Points Range

A

> 93%

A-

> 90%

B+

> 87%

B

> 84%

B-

> 80%

C+

> 77%

C

> 74%

C-

> 70%

D+

> 67%

D

> 64%

D-

>60%

E

< 60%

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

James H. "Mac" McCarty, Jr., JD MBA

Florida Bar Board Certified Real Estate Lawyer

Florida Supreme Court Certified Circuit Civil Mediator
McCarty Focks, PLLC
2630 NW 41 Street, Bldg. A
Gainesville, Florida 32606

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.*

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to*

give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

REE XXXX LAW OF REAL ESTATE TRANSACTIONS

This course provides an introduction the real estate law with an emphasis on commercial real estate:

Class periods: This is a 2-credit modular course that meets for seven weeks (six if taught during Summer B).

Class location: unknown

Academic Term: Summer 2024 (we hope)

Instructor:

James H. "Mac" McCarty, Jr., Esq.

[Email: jmccarty1@ufl.edu](mailto:jmccarty1@ufl.edu)

Office Phone Number: (352) 392-0153 (Department of Finance and Real Estate)

Office Hours: Given the combined live/electronic platform nature of this course, office hours will be online in the Canvas website Chatroom on Wednesday evenings at 9:00 p.m. – 10:00 p.m. (Gainesville, Florida time). Additional office hours are available by appointment on Zoom. Given that the instructor is a practicing attorney, office hours may be changed from time-to-time.

Course Description:

The focus of this course is on the major legal concepts, principles, statutes, and contracts that regulate and govern the negotiation, financing and closing of real estate transactions. Both residential and commercial transactions will be discussed; however, the focus will be on commercial real estate. Emphasis will be on the legal aspects of a transaction: ownership of real property, contract law, types of conveyances, legal descriptions, surveys and plats, ad valorem taxation and financing. Upon successful completion of this course, the student will be awarded two credit hours.

Course Pre-requisites:

Acceptance to the Master of Science in Real Estate (MSRE) program or graduate standing.

Course Objectives:

By the end of this course, the student should be familiar with some basic real estate law concepts, such as contracts, development, operations, and liability. While this course will address residential real estate, the focus will be on commercial real estate. The following are some *specific objectives* for students to attain:

1. Be able to recognize and apply basic principles of law to various problems which real estate development, analysis, and operations professionals may face.
2. Consider ethical constructs in the legal and business environment.
3. Evaluate the roles and activities of real estate brokers and agents, lawyers, and other consulting professionals (e.g., lenders, accountants, insurers, association managers) in real estate transactions (including negotiations).
4. Evaluate the functions of real estate letters of intent, purchase and sales contracts, leases (numerous uses), and other transaction documents (e.g., easements, licenses, profits).
5. Evaluate the role and scope of due diligence (including private/public land use restrictions, surveys, zoning, environmental) in purchase and sale and lease transactions.
6. Evaluate the scope and process of real estate finance transactions (including basic tax matters), from loans through special assets workouts, bankruptcies, and foreclosures.
7. Evaluate the function and process of title insurance in real estate transactions.
8. Evaluate the function of property and liability insurance, and risk management, in real estate operations.
9. Understand the closing process, through pre-closing, closing, and post-closing activities.

Materials and Supply Fees

N/A

Required Textbook:

Understanding Modern Real Estate Transactions (Fourth Edition), Johnson, Jr., Alex M., LexisNexis (ISBN 978-1-53100-688-3), Photocopies of the books are prohibited. Additional required and suggested readings from publicly available sources may be assigned from time-to-time.

Recommended Textbooks and Software:

N/A

Course Schedule with Correlating Reading Assignments

Week 1, first day:

- 1st half - Course overview; Regulation – brokerage & agency
Reading assignment - Chapters 1 (§1.01-§1.05) & 2 (§2.01-§2.05)
- 2nd half - Purchase and Sale agreements
Reading assignment - Chapter 3 except §3.03

Week 1, second day:

- 1st half - Due diligence
Reading assignment - Chapter 2 (§2.06)
- 2nd half - Finance
Reading assignment - Chapter 6, 7, 18

Week 2, first day

- 1st half - Special assets - workouts, bankruptcy, foreclosures
Reading assignment - Chapters 10, 11, 12 and 13
- 2nd half - Continuation of special assets - workouts, bankruptcy, foreclosures
Reading assignment - Chapters 10, 11, 12 and 13

Week 2, second day

- 1st half - Pre-closing, closing, post-closing
Reading assignment - Chapter 4
- 2nd half - Title insurance and other indemnities related to closings
Reading assignment - Chapters 3 (§3.02[C]{3}), 14 and 1

Week 3, first day

- 1st half - Negotiations, letters of intent and options
Reading assignment - §3.03 and other readings to be assigned
- 2nd half - Mid-Term Examination review

Week 3, second day - **Mid-Term Examination**

Week 4, first day

- 1st half - Easements, licenses, profits, & private land use restrictions
Reading assignment - Chapter 16
- 2nd half - Surveys
Reading assignment - to be assigned

Week 4, second day

- 1st half - Public land use restrictions & land use development
Reading assignment - to be assigned
- 2nd half - Leases - overview; due diligence
Reading assignment - Chapter 17 (§17.02); Online materials

Week 5, first day

- 1st half - Retail, restaurant, office, build-to-suit leases, & ground leases
Reading assignment - to be assigned
- 2nd half - Franchises; Risk management & insurance
Reading assignment - to be assigned

Week 5, second day

- 1st half - Negotiations, letters of intent
Reading assignment - to be assigned
- 2nd half - Conflict resolution in real estate transactions: mediation, arbitration, and litigation
Reading assignment - to be assigned

Week 6, first day

- 1st half - Communal ownership and association law
Reading assignment - Chapter 17
- 2nd half - Course Part 2 review

Week 6, second day – **Exam 2**

Attendance Policy, Class Expectations, and Make-Up policy

Class sessions will be recorded on the schedule listed in 'Course Schedule with Correlating Reading Assignments' and will be posted after the sessions are concluded. Please feel free to ask relevant questions and/or raise matters for discussion on the course website's Discussion board.

Attendance and Make-Up Assignments:

Requirements for class attendance and make-up assignments and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Evaluation of Grades

Course grading will be based upon the total accrued examinations scores. There are two online-only examinations: a Mid-Term Examination and a Final Examination. The Final Examination is "cumulative-light" – meaning that *about* 20% of the Final Examination will cover materials from the Mid-Term Examination period and *about* 80% of each examination will cover materials from that examination's part of the course. Both examinations will include the materials from lectures, reading assignments, **and** online materials that may, from time to time, be assigned. Examinations consist of multiple-choice questions in a variety of formats. Examinations are given online only via the course's Canvas website. Each examination will open and close for a time-certain, and they must be completed only within the allocated time-frame.

Students must take the examinations during the scheduled examination's open/close times to receive credit. *Only* for exceptional reasons (determined at the Professor's discretion) will examination makeups be provided. Examination make-ups are *not* guaranteed.

THE ONLY ITEMS ALLOWED TO BE USED DURING THE TWO EXAMINATIONS ARE (1) THE JOHNSON BOOK (4TH EDITION), (2) ANY ONLINE MATERIALS OR OTHER READING MATERIALS THAT MAY BE ASSIGNED FROM TIME TO TIME (3) A NON-ELECTRONIC ENGLISH AND/OR FOREIGN LANGUAGE DICTIONARY, AND (4) THE STUDENT'S OWN PERSONAL NOTES (WHICH MUST BE SELF-PREPARED).

EXAMINATIONS ARE ONLY TO BE TAKEN INDIVIDUALLY AND NOT IN ANY SIZE OR CONSTITUTED GROUPS OR COLLABORATIVE FORMAT. INFORMATION-SHARING DURING AN EXAMINATION BY ANY LIVE, SPOKEN, WRITTEN, TELEPHONIC, TEXTED, ONLINE, OR SOCIAL MEDIA, OR ANY OTHER INFORMATON-SHARING DEVICE, MECHANISM, TECHNIQUE, OR METHOD IS EXPRESSLY AND STRICTLY PROHIBITED. (THE ONLY EXCEPTION IS WITH A FORMALLY AND PROPERLY GRANTED ACCOMMODATION BY, THROUGH, OR FROM THE DISABILITY RESOURCE CENTER; NO OTHER EXCEPTIONS WILL BE PERMITTED.) NO INFORMATION-SHARING ABOUT EACH EXAMINATION, OR THE QUESTIONS ON EACH EXAMINATION, BY ANY MEAN, METHOD, OR MEDIUM IS PERMITTED UNTIL THE EXAMINATION GRADES ARE FINALIZED AND PUBLISHED. ENGAGING IN ANY FORM, SCOPE, OR DEGREE OF THE PROHIBITED CONDUCTS DESCRIBED ABOVE WILL CONSTITUTE AN HONOR CODE VIOLATION.

THE ONLY ITEMS ALLOWED TO BE USED DURING THE TWO EXAMINATIONS ARE (1) THE JOHNSON BOOK (4TH EDITION), (2) ANY ONLINE MATERIALS OR OTHER READING MATERIALS THAT MAY BE ASSIGNED FROM TIME TO TIME (3) A NON-ELECTRONIC ENGLISH AND/OR FOREIGN LANGUAGE DICTIONARY, AND (4) THE STUDENT'S OWN PERSONAL NOTES (WHICH MUST BE SELF-PREPARED). NO COMMERCIAL OR THIRD-PARTY PREPARED, PRODUCED, OR OTHERWISE DISTRIBUTED OR CIRCULATED (WHETHER FOR A COST OR AT NO-CHARGE) STUDY GUIDES OR AIDES, NOTES, OUTLINES, OR INDEXES, OR OTHER MATERIALS (WRITTEN, ELECTRONIC, OR OTHER) ARE ALLOWED TO BE USED AT ANY TIME OR FOR ANY PURPOSE DURING THE EXAMINATIONS. NO ONLINE MATERIALS OF ANY TYPE OR FROM ANY SOURCE MAY BE USED EXCEPT THOSE INCLUDED BY THE PROFESSOR ON THE COURSE'S CANVAS WEBSITE.

COURSE GRADES ARE CALCULATED USING AN OBJECTIVE SYSTEM (BASED UPON TOTAL ACCRUED POINTS, AND NOT PERCENTAGES, AS LISTED BELOW), AND ARE SUBJECT TO THE IMMEDIATELY PRECEDING BLACK BOX AND THE UNIVERSITY STUDENT HONOR PLEDGE AND HONOR CODE. THE COURSE GRADE IS BASED UPON AN AVAILABLE TOTAL OF UP TO 250 POSSIBLE POINTS FROM TWO EXAMINATIONS. EACH OF THE TWO EXAMINATIONS OFFERS UP TO 125 POSSIBLE POINTS PER EXAMINATION, FOR A TOTAL OF UP TO 250 POSSIBLE EXAMINATION POINTS FOR BOTH EXAMINATIONS. THE TWO EXAMINATIONS ARE THE ONLY SOURCES OF POINTS TOWARD THE COURSE GRADES.

UNIVERSITY OF FLORIDA ACADEMIC GUIDELINES (E.G., THE HONOR CODE) STRICTLY APPLY AT ALL TIMES. ANY VIOLATIONS (WHETHER OF AN INDIVIDUAL, COLLECTIVE, OR OTHER GROUP NATURE) SHALL BE DEALT WITH IN ACCORDANCE WITH UF'S ACADEMIC GUIDELINES. ALSO, ANY STUDENT WHO USES PROHIBITED ITEMS DURING THE EXAMINATIONS WILL BE DEALT WITH IN ACCORDANCE WITH UF'S ACADEMIC GUIDELINES. ANY STUDENT VIOLATING THESE EXAMINATION RULES WILL NOT RECEIVE CREDIT FOR THE RESPECTIVE EXAMINATION(S). THE PROFESSOR MAY AUDIT OR OTHERWISE EXAMINE STUDENTS' TEXTBOOKS, NOTES, AND OTHER MATERIALS BEFORE, DURING, OR AFTER THE EXAMINATIONS.

COURSE GRADES ARE CALCULATED USING AN OBJECTIVE SYSTEM (BASED UPON TOTAL ACCRUED POINTS, AND NOT PERCENTAGES, AS LISTED BELOW), AND ARE SUBJECT TO THE IMMEDIATELY PRECEDING BLACK BOX AND THE UNIVERSITY STUDENT HONOR PLEDGE AND HONOR CODE. THE COURSE GRADE IS BASED UPON AN AVAILABLE TOTAL OF UP TO 250 POSSIBLE POINTS FROM TWO EXAMINATIONS. EACH OF THE TWO EXAMINATIONS OFFERS UP TO 125 POSSIBLE POINTS PER EXAMINATION, FOR A TOTAL OF UP TO 250 POSSIBLE EXAMINATION POINTS FOR BOTH EXAMINATIONS THE TWO EXAMINATIONS ARE THE ONLY SOURCES OF POINTS TOWARD THE COURSE GRADES. EXAMINATION AND COURSE GRADES WILL BE CALCULATED AND POSTED AS PROMPTLY AS POSSIBLE.

The following are the course grade/points range break-points:

<u>Grade</u>	<u>Points Range</u>
A	228.75 and above
A-	225.00 to 228.74
B+	217.50 to 224.99
B	207.5 to 217.49
B-	200 to 207.49
C+	192.50 to 199.99
C	182.50 to 192.49
C-	175.00 to 182.49
D+	167.50 to 174.99
D	157.50 to 167.49
D-	150.00 to 157.49
E	149.99 and below

The University's grading policies can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

The University requires that the following statement be placed on every syllabus: "The University of Florida is committed to providing equal educational access to students with disabilities. As you are developing and/or updating your syllabi for the spring semester, please take a moment to review the university's "["UF Policy on Course Syllabi"](#) which specifies the inclusion of the following recommended statement related to accommodations for students with disabilities: "Students with disabilities requesting accommodations should first register with the Disability Resource Center (352392-8565, [Disability Resource Center - Disability \(ufl.edu\)](#) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodations. Students with disabilities should follow this procedure as early as possible in the semester." So, if you have a disability and follow the University's process for certifying to me what you need in the way of accommodations, the Professor will be more than happy to make any reasonable accommodations.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

The University's grading policies for assigning grade can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

"Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here.](#)"

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

Our class sessions will be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Campus Resources-Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please [contact \[umatter@ufl.edu\]\(mailto:contact.umatter@ufl.edu\)](mailto:contact.umatter@ufl.edu), 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Sexual Violence Response services: <https://umatter.ufl.edu/helping-students/sexual-violence-response/>, 284-352-2273; Student Health Care Center, <https://shcc.ufl.edu/>, 392-1161; and the University Police Department, <https://police.ufl.edu/>, 392-1111 or 9-1-1 for emergencies.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

University Police Department: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center:

For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

Campus Resources-Academic

E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail [at helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

On-Line Students Complaints: [View the Distance Learning Student Complaint Process](#).

Library Resources: Students are encouraged to use the many resources available at and through the University of Florida libraries. The following are certain web addresses which may be useful: Library Homepage: <http://www.uflib.ufl.edu/> (for all library services and collections); Course Reserves <https://cms.uflib.ufl.edu/accesssupport/coursereserves> (for hard copy and/or electronic reserves); Ask-A-Librarian: <http://cms.uflib.ufl.edu/ask> (direct email or online chat for assistance); IR @ UF: <https://ufdc.ufl.edu/ufirg> (to access the UF digital *Institutional Repository*); Library Tools and Mobile Apps: <http://www.uflib.ufl.edu/tools/> (smart phone apps, RSS feeds, and much more); Subject Guides/Specialists: <http://apps.uflib.ufl.edu/staffdir/SubjectSpecialist.aspx> (by discipline and/or course); Technical Resources: <http://helpdesk.ufl.edu> (352-392-4357)

Website:

The course has a “Canvas” website. The website can be accessed by going to warrington.ufl.edu through the e-Learning portal. Use of this website is required. On the website students can access the course’s Calendar, Syllabus, Announcements, Discussions, Chat, course materials, and other information. Students should access the website frequently to check for any new announcements.

Announcements During the Semester:

Important announcements will be posted on the website. It is critical that you frequently check the course website throughout the semester. Announcements and emails will include important course policies.

Discussion Board:

There is a public Discussion board on the website. Please use the Discussion board to post substantive and administrative questions that will benefit the entire class. Do not post questions about individual matters. Please send an e-mail if you have a question pertaining to your own grade or personal matter. Any student posting that is frivolous, rude, vulgar, commercial in nature, more of a personal matter than for the class as a whole, or that the Professor otherwise deems to be inappropriate, will be removed. (These online decorum protocols apply equally to the Chat function.) Postings will be removed as they become outdated.

WARNING:

The lectures and original materials created by the Professor are your Professor's property, and are protected by applicable intellectual property rights (including copyright). The lectures and original materials created by the Professor shall not be used for any commercial purpose. Violation subjects you to various penalties, including termination of all Canvas privileges. Your access to the website cannot be transferred to anyone else who may use that access for a commercial purpose.

Honorlock examination participation:

In order to maintain a high standard of academic integrity and assure that the value of a University of Florida degree is not compromised, course examinations will be proctored. Examinations are administered for all Students on the Canvas course website with the support of Honorlock.

The following statement is required:

The University of Florida requires that any assessment equivalent to 15% or more of a student's final course grade must be proctored. This policy protects both the value of your academic degree and your own time and effort in becoming a successful Warrington student. Please expect all assessments to be proctored and all assignments to utilize plagiarism software, and prepare accordingly.

For online proctored exams, you are expected to have:

- a working webcam and computer (restart your computer before your exam for the most effective testing environment)*
- Google Chrome*
- a downloaded extension to your Chrome browser (Honorlock)*
- a private workspace (if this is unachievable contact your faculty)*
- incredible attention to exam instructions (it's your responsibility not to get flagged for cheating)*
- diligence to notify your faculty of accommodations or extenuating circumstances that affect your exam time or exam environment at the beginning of the term (at the very least, one week before your exam)*
- integrity to abide by all exam instructions and report any irresponsible peers*

The Warrington College of Business is strongly committed to academic integrity and will rigorously enforce violations of the UF Honor Code and/or additional Warrington academic integrity policies. To be a successful student please read all instructions for any assignment carefully, do not collaborate on individual exams, assignments, or homework, and review the following best practices to be prepared.

Review the "Best Practices for Preparing for and Taking an Honorlock Exam" on the UF Warrington College of Business website.

Please arrange to download and enable the Honorlock extension during the first week of the semester. Wireless internet is not recommended. The Student may also need a mirror or other reflective surface. Google Chrome is the only supported browser for taking exams in Canvas. The Professor cannot make

Honorlock arrangements for a Student.

If a Student experiences technical difficulties during an examination, the Student should immediately contact Honorlock support via the Live Chat option while in the examination (the Live Chat feature is enabled as part of the Honorlock extension), or by calling the Honorlock support number (844-2432500) and/or the UF Computing Help Desk (352-392-4357) provided in the Warrington Honorlock Student Guide. Usually Honorlock is usually able to successfully handle the issue without the need for further intervention.

Important preparatory note: It is strongly recommended that Students take the no-credit non-substantive program check (on the course's site) prior to the Examination to make sure their system works properly.

NOTE: Honorlock policies, practices, and procedures are subject to update or change from time-to-time.

Grading:

Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior." The Honor Code ([Student Honor Code | SCCR \(ufl.edu\)](#)) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

Course|New for request 18517

Info

Request: SPM 5XXX The Racquet Sports Industry
Description of request: New Course Proposal
Submitter: Sarah Eberhart seberhart@hhp.ufl.edu
Created: 9/26/2023 9:29:18 AM
Form version: 6

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
SPM

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
5

Rationale for 5000 level course request

Please provide the rationale for submitting this course as a 5000 level course in the space provided below. (i.e. target audience, program, school). 5000 level courses may need additional, joint review by the University Curriculum Committee and Graduate School.

Response:
This course is an introductory graduate-level elective offered by the Department of Sport Management that also serves as a prerequisite for another course in the Graduate Sport Management Program. It is intended for graduate students. This course will be a pre-requisite to SPM6XXX The Racquets Directorship.

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Introductory

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
The Racquet Sports Industry

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
The Racquet Sports Industry

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:

Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:

3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:

Covers racquet sports business leadership. Topics covered include differing facility types and differing governance, management and operations of club businesses, and technology advancements related to operations. A section of the class will also focus on tennis history and emerging trends in complementary racquet sports.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

HH7 or HH8

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.

Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This course is offered as an elective in the Graduate Sport Management Program. It is also a part of a specialization for students who are pursuing careers in the Racquet Sports Industry. It complements the core curriculum and allows students to tailor their academic program to meet their academic and career goals.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

students will convey their knowledge through applying it to real-world situational industry challenges and provide a presentation of their knowledge of self to reach career aspirations. Assignments will be graded based on the provided rubric.

Discussions 210

(Introduction and Yellowdig Ongoing Discussion)

Throughout the semester, students will be required to be active in submitting content and comments about relevant topics on YellowDig, a social media-type, class-focused platform. This is to provide the student with connection to industry professionals and peers in the course. Grading is based on the number of points accumulated, timely and thoroughly written posts, and contributing resources and ideas including actionable coaching techniques about topics covered in course modules.

Quizzes

80

(6 quizzes)

Module quizzes, including multiple choice questions, covering major concepts covered in the course readings will gauge student comprehension.

Final

120

Students will be assessed on content and concepts in the course through a 60-question multiple choice exam.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Kim Bastable, M.S., USPTA

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:*

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.*

Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

SPM 6905 The Racquet Sports Industry

Location: Online
Academic Term: Fall 2022
Section: 17283

Instructor:

Kim Bastable, M.S. USPTA

Faculty and Director of USTA Professional Tennis Management

913-800-4616 | kimbastable@ufl.edu

Office Hours: Tuesdays and Thursdays 10am -2pm

Course Description

Covers racquet sports business leadership. Topics covered include differing facility types and differing governance, management and operations of club businesses, and technology advancements related to operations. A section of the class will also focus on tennis history and emerging trends in complementary racquet sports.

Course Prerequisite(s): HH7 or HH8 status

Course Website

[Canvas E-learning](#)

Course Communication

For any course-related questions, email kimbastable@ufl.edu and include your course number and name in the email.

Course Objectives

Upon completion of this class, students should be able to:

- Identify varied and broad roles of a racquet sports director, regarding facility construction and maintenance, and running a small retail business
- Create safety procedures to avoid risk to staff and club or facility members
- Distinguish between tennis and other similar racquet sports now trending at clubs and facility and be able to articulate their pros, cons and differences.
- Summarize a basic history of tennis.
- Analyze industry hiring practices and construct a personal brand marketing plan to reach desired career goals

Required Textbooks and Software

No books are required to be purchased. All materials will be provided through library course reserves or available through open access.

Attendance Policy, Class Expectations, and Make-Up Policy

The assignments will be used to assess the student's academic standing in this course. Failure to make prior arrangements may result in rejection of work submitted late as rescheduling/accepting assignments is at the discretion of the instructor. All assignments are due by 11:59pm EST on the date listed in the schedule. **Late assignments will be accepted. However, they will be graded down 10% each day late, up to 7 days. Assignments more than 7 days late will receive a 0 unless arrangements were agreed upon with the instructor within 1 week of the assignment due date.**

Course Requirements

The assignments will be used to assess the student's academic standing in this course. Failure to make prior arrangements may result in rejection of work submitted late as rescheduling/accepting assignments is at the discretion of the instructor. All assignments are due by 11:59pm EST on the date listed in the schedule. **If late assignments are graded, they will be graded down 10% each day with assignments submitted more than 2 days late not accepted for credit at all, unless arrangements have been made with the instructor prior to the due date for that assignment.**

The final exam will NOT be accepted past the deadline unless prior arrangements have been made more than 24 hours before the due date.

Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the [online catalog](#).

32 % - Projects

5 assignments = 190 points

To confirm understanding of the material and evaluate comprehension of course content, students will convey their knowledge through applying it to real-world situational industry challenges and provide a presentation of their knowledge of self to reach career aspirations. Assignments will be graded based on the provided rubric.

35% - Yellow Dig Discussion submission & participation and Canvas introduction submission

1 semester-long discussion board on YellowDig = 200 points; 1 introduction submission on Canvas = 10 pts

Throughout the semester, students will be required to be active in submitting content and comments about relevant topics on YellowDig, a social media-type, class-focused platform. This is to provide the student with connection to industry professionals and peers in the course. Grading is based on the number of points accumulated, timely and thoroughly written posts, and contributing resources and ideas including actionable coaching techniques about topics covered in course modules.

13% - Quizzes

Module quizzes = 80 points

Module quizzes, including multiple choice questions, covering major concepts covered in the course readings will gauge student comprehension.

20% - Final Exam

1 Final exam = 120 points

Students will be assessed on content and concepts in the course through a 60-question multiple choice exam.

Grading

Projects	190
Discussions	210
Quizzes	80
Final	120
	<hr/>
	600

Grading Scale – According to the Graduate Catalog any grade below 73 (C) is not considered passing.

A	= 100-93	C(S)	= 76.99-73
A-	= 92.99-90	C-(U)	= 72.99-70
B+	= 89.99-87	D+	= 69.99-67
B	= 86.99-83	D	= 66.99-63
B-	= 82.99-80	D-	= 62.99-60
C+	= 79.99-77	E	= 59.99-0

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing [online evaluations](#). Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students on the [Gator Evals page](#).

University Honesty Policy

UF students are bound by The Honor Pledge, which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Course Schedule

Week #	Topic	Assignment	Due Date	Point Value
semester long	Yellow Dig Discussion Tool	Submissions of your desire on YellowDig, a social media-type, class-focused platform, on topics discussed within the course	ongoing	200
Week 1	Intro to course	Canvas Discussion Board - Personal Introduction	8/31/2022	10
		Syllabus Quiz	8/31/22	10
		PROJECT: LinkedIn Learning assignment	8/31/22	30
Week 2 & 3	MODULE 1 - Intro to Director of Racquet Sports	PROJECT: Career Aspirations assignment – assigned week 2, due 9/25/22	9/25/22	40
		Module Mastery Quiz – Module 1	9/11/22	10
Week 4	MODULE 2 -Tennis History and Knowledge	Yellow Dig discussion participation begins	Ongoing for 9 weeks – finishing 11/23/22	
		Module Mastery Quiz – Module 2	9/18/22	10
Week 5	MODULE 3 -Complementary Racquet Sports: Pickleball			
Week 6	Complementary Racquet Sports: SPEC/POP/Touch tennis			
Week 7	Complementary Racquet Sports: Platform and Padel	PROJECT: Make a Case for A Complimentary Racquet Sport Assignment	10/9/22	40
		Module Mastery Quiz – Module 3	10/9/22	20
Week 8 –	MODULE 4 - Lessons 1 & 2: Operations/Facilities: Tennis courts – hard/clay	Mid semester survey	10/16/22	0
Week 9	Lessons 3: Operations/Facilities: Safety & Risk Management			
Week 10	Lesson 4: Operations/Facilities: Profitable Retail			
Week 11	Lesson 5: Operations/Facilities: General club care and SOPs	Module Mastery Quiz – Module 4	11/6/22	20

Week 12	MODULE 5 - Technology	PROJECT - Create a technology solution	11/13/22	40
		Module Mastery Quiz - Module 5	11/13/22	10
Week 13	MODULE 6 -Maximizing personal brand - creating your story			
Week 14	Maximizing personal brand - Selling oneself			
Week 15	Maximizing personal brand - Putting it all together	PROJECT: Personal Marketing Assignment	12/4/22	40
Week 16	MODULE 7 - Final Exam	Final exam - must be completed by	12/15/22 6 pm ET	120
		TOTAL POINTS AVAILABLE FOR CLASS		600

Student Services:

Health and Wellness

U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies)

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

On-Line Students Complaints

The Racquet Sports Industry:

Rubric for Technology Solution Assignment: Total Points: 40

Criteria	Excellent	Needs Improvement	Points
This criterion is linked to a Learning Outcome: communicate a problem identified within a racquets operation	10 to > 5 pts Clearly identifies and summarizes the business challenge; proper spelling & punctuation	5 to > 0 points Cursory summer of the business challenge with minor grammatical errors	10
This criterion is linked to a Learning Outcome: communicate a solution using technology to address the identified challenge	15 to > 7pts Describes how you propose that the change will affect the club - how will this solve the problem by answering 3 question prompts; proper spelling & punctuation	7 to > 0 pts Describes how the change will affect the club but did not answer all three question prompts or there are grammatical errors	15
This criterion is linked to a Learning Outcome: identify and explain roadblocks; identify and explain solutions to each	15 to > 7pts 3 identified roadblocks with creative solutions; proper spelling & punctuation	7 to > 0 pts Did not identify three roadblocks or did not provide creative solutions or there are grammatical errors	15
Total			40

Course|New for request 17718

Info

Request: SPM 6XXX Advanced Sport Law

Description of request: Proposal of Advanced Sport Law course

Submitter: Cyntrice Thomas cthomas10@ufl.edu

Created: 12/16/2022 3:50:23 PM

Form version: 2

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

SPM

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

* *

Response:

Intermediate

• 1000 level = Introductory undergraduate

- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Advanced Sport Law

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Advanced Sport Law

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
This course is designed to further student understanding of foundational legal principles in the field of sport management, especially those principles governing contractual relationships, agency representations, and liability for wrongful conduct. This course builds on the basic principles of law students studied in the introductory Sports Law course.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

*Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.*

Response:
SPM6726

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.

• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:

N/A

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

For students who have a strong interest in the application of legal concepts to sports, this course offers them an opportunity to dive more deeply into particular areas of law such as agency law and contract law and their application to sport. This course is an elective that is also a part of the Law Specialization offered to students in the M.S. in Sport Management degree program.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

By the end of this course, students will:

- Examine the role of contracts in sports management and be able to explain how contracts are formed and enforced.
- Differentiate the kinds of contracts commonly used in the field of sports management.
- Differentiate how agency relationships are formed and what duties the agency relationship imposes.
- Analyze hypothetical scenarios involving sports and recreation and predict what types of tort liability they might generate.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Required Text: Rohwer & Skrocki. (2017) Contracts in a Nutshell (7th Ed.) West Academic Publishing
ISBN-13: 9781683283492

This is the only book that needs to be purchased for the course. Any other required reading will be shared on Canvas.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

MODULE 1: INTRODUCTION TO CONTRACTS AND FRAMEWORK

Module Objectives: In this module we will offer an introduction for how to think about law and an introduction to contracts that includes Contract Formation as well as issues of Consideration and the Bargain Principle. This module is about developing core competencies in reading and synthesizing cases and in offering a background on what contract law is, the existence of a promise, its elements, and bargained for exchange.

Welcome and Introduction to Contracts

Week 1: 8/24-8/28 Contracts

Week 2: 8/29 - 9/4 Avoidance and Excusing Performance

Week 3: 9/5 - 9/11 Contracts Against Public Policy , Interpreting Contracts, Parole Evidence

Week 4: 9/12 - 9/18 Contract Breach and Conditions, Intro to Remedies, Foreseeability and Certainty

Week 5: 9/19 – 9/25 Remedies: The Mitigation Principle, Non-Performance, Assignment and Delegation

Week 6: 9/26– 10/2 Contracts and Third Parties

Assignment: Initial Discussion Post Due on 8/26; Discussion Responses Due on 8/28/22

MODULE 2: CONTRACT APPLICATION

Module Objectives: In this module we offer some practical application of many of the issues that we have analyzed in contract law. We begin with an overview of arbitration generally and then apply it to a baseball setting. Next, we have a series of case studies that offer real world examples of situations in which contracting plays a role in business. Law shapes a number of these opportunities.

Week 7: 10/3-10/9 Arbitration, Mock Arbitration Review

Week 8: 10/10 -10/16 Contract Licensing, Drafting

Assignment: Contracts Initial Discussion Board Post Due on 10/6/22; Discussion Responses Due on 10/9/22

Contracts Exam 1 10/16/22

MODULE 3: AGENCY LAW

Module Objectives: In this module, we focus on a few principles that we believe are foundational to the study of business organizations: agency formation, fiduciary duty, and various principles of attribution. All of us enter into relationships, but only some of those relationships invoke legal regulation. We examine why agency relationships and partnerships subject to legal regulation. Many of the rules governing business organizations are directed at the inward-looking consequences of the relationship. In addition to rules about the inward- looking consequences of the relationship, each business organization has default rules about outward-looking consequences. We explore and synthesize legal doctrine on these issues.

Week 9: 10/17 - 10/23 The Law of Agency, Agency Theory and Loyalty, Actual and Apparent Authority

Week 10: 10/24 - 10/30 Agency Law and Inherent Agency Power, Inherent Authority and

Undisclosed Principle, Agency-Torts and Duties, Agency Law and Vicarious Liability

Assignment: Agency Discussion Board Post Due on 10/20/22; Discussion Responses Due 10/23/22
Agency Law Exam 10/30/22

MODULE 4: TORT LAW

Module Objectives: Torts law has two major objectives: (1) to compensate the victims of a tort victims and (2) deterrence. The law of torts can be broken into its general doctrinal elements. Ultimately, these readings strengthen your ability to evaluate and analyze tort claims, apply case law to factual situations and to interpret and predict legal risk based on an analysis of legal doctrine to business practices.

Week 11: 10/31 - 11/6 Introduction to Torts

Week 12: 11/7 - 11/13 Elements of Negligence and Defenses

Week 13: 11/14 - 11/20 Recreational Use Statutes, Duty-Dram Shop Liability, Duties to Control Others, No Duty to Rescue/Control Others

Week 14: 11/21 - 11/27 Causation, Damages and Defenses

Week 15: 11/28 - 12/4 Assumption of the Risk and Injuries to Athletes and Spectators, Right of Publicity and Athletes

Week 16: 12/5-12/11 Last Week of Classes & Reading Days

EXAM WEEK: 12/12-12/16 Third Exam (Last Exam of Semester)

Assignment: Torts Initial Discussion Board Post Due on 11/10/22; Responses Due on 11/13/22
Torts Exam 12/13/22

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Evaluation Components Points Per Component

Approximate % of Total Grade

(number of each)

Discussion Posts (4)

50 pts each = 200 pts

200/500 (40%)

Exams (3)

100 pts each = 300 pts

300/500 (60%)

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Michelle Clemons, J.D.

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

- *Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.*

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

- *Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.*

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

- *<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>*

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at [.](https://gatorevals.aa.ufl.edu/public-results/)*

* *

Response:
Yes

Advanced Sport Law

SPM6XXX | Class # XXXXX | 3 Credits | Fall 2022

Connect with HHP



Course Info

INSTRUCTOR

A. Michelle Clemon, J.D., M.S., SPHR
Email: michelleclemon@ufl.edu
Preferred Method of Contact: **You may contact me through Canvas or email directly. I will try to respond within 48 hours.**

OFFICE HOURS

On Zoom by appointment

MEETING TIME/LOCATION

Access course through Canvas on UF e-Learning
(<https://elearning.ufl.edu/>) & the Canvas mobile app by Instructure

COURSE DESCRIPTION

This course is designed to further student understanding of foundational legal principles in the field of sport management, especially those principles governing contractual relationships, agency representations, and liability for wrongful conduct. This course builds on the basic principles of law students studied in the introductory Sports Law course.

COURSE PREREQUISITES

The prerequisite for this course is SPM6726: Issues in Sport Law.

REQUIRED AND RECOMMENDED MATERIALS

All required reading will be shared on Canvas. There is no required textbook for this course.

COURSE FORMAT

The class will include lectures, cases, video material, discussion of issues, and occasional visits from executives involved in meaningful decisions affecting the sports business. (The latter are typically people who have cooperated in providing class material.) **The teaching method in this course is in alignment with how a typical law course is taught, where there are one or two exams designed to assess students' ability to analyze and synthesize fact patterns. Discussion posts are utilized to assess students' understanding of the course content, with an emphasis on the elements of the various contract, agency and tort claims covered in the material.**

COURSE LEARNING OBJECTIVES:

By the end of this course, students will:

- Examine the role of contracts in sports management and be able to explain how contracts are formed and enforced.
- Differentiate the kinds of contracts commonly used in the field of sports management.
- Differentiate how agency relationships are formed and what duties the agency relationship imposes.
- Analyze hypothetical scenarios involving sports and recreation and predict what types of tort liability they might generate.

Course & University Policies

COURSE INFORMATION AND POLICIES

Please read this syllabus carefully. All quizzes, exams, assignments, discussion posts, and so forth must be submitted by the date listed on the syllabus. Quizzes and exams will only be available on the dates and times listed on the syllabus. Please put the relevant deadlines on your calendar! We will not accept assignments, quizzes, or discussion posts after the posted deadlines.

If personal circumstances arise that may interfere with your ability to meet a deadline, please let us know as soon as possible before the due date. Please keep in mind only university authorized excuses will be accepted, and documentation must be provided. Requirements for make-up exams, assignments, and other work are consistent with [University Policies](#).

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

Please check the Course Announcements periodically for clarifications as needed.

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The [Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

EXAM MAKE-UP POLICY

NO MAKEUP EXAMS will be given without an excused absence. Exams are to be scheduled and taken on Canvas. Directions for this process can be found on the Canvas course site. A cumulative final exam will be given during the last week of classes.

A student experiencing an illness should visit the UF Student Health Care Center or their preferred healthcare provider to seek medical advice and obtain documentation. If you have an illness, family emergency or death, please contact the [Dean of Students Office](#) and follow the DSO Care Team procedures for documentation and submission of a request for make-up assignment the [Contact My Instructor](#). The DSO will contact the instructor. Do not provide any documentation to the instructor regarding illness or family emergency. This is your personal

and protected information. The DSO is qualified to receive and verify the documents you provide. The instructor will follow the recommendations from the DSO.

ACCOMMODATING STUDENTS WITH DISABILITIES

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

U MATTER, WE CARE

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

COPYRIGHT STATEMENT

The materials used in this course are copyrighted. The content presented is the property of UF and may not be duplicated in any format without permission from the College of Health and Human Performance, UF Levin College of Law, and UF, and may not be used for any commercial purposes.

Getting Help

HEALTH & WELLNESS

- [U Matter, We Care](#): If you or someone you know is in distress, please contact umatter@ufl.edu or 352-392-1575 so that a team member will can out to the student in distress.
- [Counseling and Wellness Center](#): Visit or call 352-392-1575 for information on crisis services as well as non-crisis services.
- [Student Health Care Center](#): Call 352-392-1161 for 24/7 information to help you find the care you need
- Sexual Assault Recovery Services (SARS): Student Health Care Center, 392-1161.
- [University Police Department](#): Visit or call 352-392-1111 (or 9-1-1 for emergencies).
- [UF Health Shands Emergency Room / Trauma Center](#): For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608

ACADEMIC RESOURCES

- [E-learning technical support](#): Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.
- [Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring
- [Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers
- [Student Complaints](#)

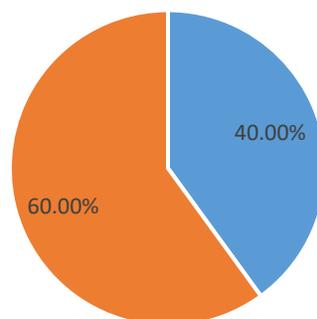
INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY RESOURCES

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups. The IDEA Representative for the Department of Sport Management is Dr. Christine Wegner (christinewegner@ufl.edu).

Grading

Evaluation Components (number of each)	Points Per Component	Approximate % of Total Grade
Discussion Posts (4)	50 pts each = 200 pts	200/500 (40%)
Exams (3)	100 pts each = 300 pts	300/500 (60%)

Grade Breakdown



Exams

Three (3) exams will be given during the semester. Exam 1 will cover the Contracts materials. Exam 2 will cover Agency Law materials. Exam 3 will cover Torts materials. The format of the exams will be essays in which students react to fact patterns. Exam content will be based on material from lectures, PowerPoint slides, and other assigned readings (case law and assignments) from the weeks prior to that exam. NO MAKE-UP EXAMS will be given without an excused, approved absence. Exams will be given in Canvas. The grading rubric for the exams will be provided in Canvas. Any missed exam will result in a zero. If you have a conflict (that warrants a make-up) with the exam dates or times, you must inbox Professor Clemon on Canvas at least seven days prior to the exam to request a possible make-up time and date. Please provide specific information for your request. Make-ups will only be given for very rare, extenuating circumstances.

Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software or schedule an appointment in advance. Honorlock is available 24/7 and all that is needed is a computer, a working webcam, and a stable Internet connection.

To get started, you will need Google Chrome and to download the Honorlock Chrome Extension. You can download the extension at www.honorlock.com/extension/install. When you are ready to test, log into the LMS, go to your course, and click on your exam. Clicking Launch Proctoring will begin the Honorlock authentication process, where you will take a picture of yourself, and show your ID. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Good luck! Honorlock support is available 24/7/365. If you encounter any issues, you may contact us by live chat, phone (844-243-2500), and/or email (support@honorlock.com). If you encounter issues within the LMS, you may contact Your School's Online Support Services team at their number.

Discussion Questions and Discussion Boards

Students will take part in four (4) discussions during the semester. See list of deadlines below. Students will be put into groups (dependent on the size of the class) and required to post an Initial Post based on the instructions/subject matter but must also post subsequent posts/responses to their group member's posts. Points will be given for your initial post AND your responses to group members. Posts should be well reasoned, articulate, on time, and supported by examples and concepts learned each week. You can respond to your group members with ideas, questions, or your view on their posts. All students are expected to follow rules of common courtesy in email messages, discussions, chats etc.

GRADING SCALE

More detailed information regarding current policies can be found in [UF Grading Policies](#).

Letter Grade	Grade Percentage	GPA Impact of Each Letter Grade
A	93-100%	4.0
A-	90-92.9%	3.67
B+	87-89.9%	3.33
B	83-86.9%	3.0
B-	80-82.9%	2.67
C+	77-79.9%	2.33
C	73-76.9%	2.0
C-	70-72.9%	1.67

D+	67-69.9%	1.33
D	60-66.9%	1.0
E	Below 60%	0

STUDENT PRIVACY

There are federal laws protecting your privacy with regard to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Weekly Course Schedule

Disclaimer: This syllabus represents the tentative plans and objectives for the course. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected. **Accordingly, students should monitor Canvas and rely on it for any updates/changes made to the syllabus.**

MODULE 1: INTRODUCTION TO CONTRACTS AND FRAMEWORK
<p>Module Objectives: In this module we will offer an introduction for how to think about law and an introduction to contracts that includes Contract Formation as well as issues of Consideration and the Bargain Principle. This module is about developing core competencies in reading and synthesizing cases and in offering a background on what contract law is, the existence of a promise, its elements, and bargained for exchange.</p> <p>Welcome and Introduction to Contracts Week 1: 8/24-8/28 Contracts Week 2: 8/29 - 9/4: Avoidance and Excusing Performance Week 3: 9/5 - 9/11: Contracts Against Public Policy , Interpreting Contracts, Parole Evidence Week 4: 9/12 - 9/18: Contract Breach and Conditions, Intro to Remedies, Foreseeability and Certainty Week 5: 9/19 – 9/25: Remedies: The Mitigation Principle, Non-Performance, Assignment and Delegation Week 6: 9/26– 10/2: Contracts and Third Parties</p>
MODULE 2: CONTRACT APPLICATION
<p>Module Objectives: In this module we offer some practical application of many of the issues that we have analyzed in contract law. We begin with an overview of arbitration generally and then apply it to a baseball setting. Next, we have a series of case studies that offer real world examples of situations in which contracting plays a role in business. Law shapes a number of these opportunities.</p> <p>Week 7: 10/3-10/9: Arbitration, Mock Arbitration Review Week 8: 10/10 -10/16: Contract Licensing, Drafting</p>
MODULE 3: AGENCY LAW
<p>Module Objectives: In this module, we focus on a few principles that we believe are foundational to the study of business organizations: agency formation, fiduciary duty, and various principles of attribution. All of us enter into relationships, but only some of those relationships invoke legal</p>

regulation. We examine why agency relationships and partnerships subject to legal regulation. Many of the rules governing business organizations are directed at the inward-looking consequences of the relationship. In addition to rules about the inward-looking consequences of the relationship, each business organization has default rules about outward-looking consequences. We explore and synthesize legal doctrine on these issues.

Week 9: 10/17 - 10/23: The Law of Agency, Agency Theory and Loyalty, Actual and Apparent Authority

Week 10: 10/24 - 10/30: Agency Law and Inherent Agency Power, Inherent Authority and Undisclosed Principle, Agency-Torts and Duties, Agency Law and Vicarious Liability

MODULE 4: TORT LAW

Module Objectives: Torts law has two major objectives: (1) to compensate the victims of a tort victims and (2) deterrence. The law of torts can be broken into its general doctrinal elements. Ultimately, these readings strengthen your ability to evaluate and analyze tort claims, apply case law to factual situations and to interpret and predict legal risk based on an analysis of legal doctrine to business practices.

Week 11: 10/31 - 11/6: Introduction to Torts

Week 12: 11/7 - 11/13: Elements of Negligence and Defenses

Week 13: 11/14 - 11/20: Recreational Use Statutes, Duty-Dram Shop Liability, Duties to Control Others, No Duty to Rescue/Control Others

Week 14: 11/21 - 11/27: Causation, Damages and Defenses

Week 15: 11/28 - 12/4: Assumption of the Risk and Injuries to Athletes and Spectators, Right of Publicity and Athletes

Week 16: 12/5-12/11 Last Week of Classes & Reading Days

Week 17: 12/12-12/16: Third Exam (Last Exam of Semester)

IMPORTANT DEADLINES

Assignment	Points	Due Date
Introductory Discussion Board Post	50	Initial Discussion Post Due on 8/26 Discussion Responses Due on 8/28/22
Contracts Initial Discussion Board Post and Discussion Responses	50	Contracts Initial Discussion Board Post Due on 10/6/22 Discussion Responses Due on 10/9/22
Contracts Exam	100	10/16/22
Agency Discussion Board Post and Discussion Responses	50	Agency Discussion Board Post Due on 10/20/22 Discussion Responses Due 10/23/22
Agency Law Exam	100	10/30/22
Torts Discussion Board and Discussion Responses	50	Torts Initial Discussion Board Post Due on 11/10/22 Responses Due on 11/13/22
Torts Exam	100	12/13/22

Discussion Board Rubric

Discussion Board Rubric

Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome Issue	10 pts Excellent Clearly identifies the issue(s) presented by the question. Presents what is the legal question that, when answered, would best determine the result of the legal case if the parties were to litigate	9-8 pts Good Adequately identifies the issue(s) but does so in a less specific way.	7 or fewer pts Needs Improvement The information presented has little or nothing to do with the legal issue(s) presented.	10 pts
This criterion is linked to a Learning Outcome Rule (The rule clearly states the general principal to the particular case)	15 pts Excellent Unambiguously describes which rule (statutory and/or code-based law) applies to the issue.	14-12 pts Good Adequately describes the rule but not necessarily in detail or with complete accuracy to the issue.	11 or fewer pts Needs Improvement Misidentifies the rule.	15 pts

Discussion Board Rubric

Criteria	Ratings			Pts
<p>This criterion is linked to a Learning Outcome Analysis (The analysis is the most important, and the longest, part of your answer)</p>	<p>20 pts Excellent Demonstrably applies the rule to the facts of the problem. Utilizes a comprehensive approach to the application of facts to each rule and discusses both parties' perspectives of the rule when possible.</p>	<p>19-16 pts Good Some critical thinking is reflected in the analysis but some complexity and nuance of analysis is missing.</p>	<p>15 or fewer pts Needs Improvement Does not apply the rule to the facts adequately or effectively. Provides a one-sided answer without analyzing which facts might support an inference in favor of the other side</p>	<p>20 pts</p>
<p>This criterion is linked to a Learning Outcome Conclusion</p>	<p>5 pts Excellent Clearly states the result of the analysis.</p>	<p>4-3 pts Good States a conclusion but with less than optimal clarity.</p>	<p>2 or fewer pts Needs Improvement Does not state the result of the analysis.</p>	<p>5 pts</p>
<p>Total Points: 50</p>				

Course|New for request 18835

Info

Request: SYA 6XXX Professional Development in Sociology

Description of request: This is for a required seminar for graduate students in sociology. This is cross-listed with CCJ 6936, the corresponding professional development seminar in criminology.

Submitter: Stephen Perz sperz@ufl.edu

Created: 9/29/2023 5:57:39 PM

Form version: 3

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

SYA

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Intermediate

- 1000 level = *Introductory undergraduate*
- 2000 level = *Introductory undergraduate*
- 3000 level = *Intermediate undergraduate*
- 4000 level = *Advanced undergraduate*
- 5000 level = *Introductory graduate*
- 6000 level = *Intermediate graduate*
- 7000 level = *Advanced graduate*
- 4000/5000= *Joint undergraduate/graduate*
- 4000/6000= *Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:

Professional Development in Sociology

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:

Prof Dev in Soc

Degree Type

Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)

*Indicate all platforms through which the course is *<i>currently</i>* *<i>planned</i>* to be delivered.*

Response:

On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Fall

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Seminar

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week <i>on average </i>throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Introduction to professional practices in sociology and criminology. Overview of research ethics, science communication, and other elements of professional practice in research and teaching. Review of scholarly literature in one's research topic as a first step toward a research proposal. Required for sociology and criminology graduate students.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

Graduate admission in the Department of Sociology and Criminology & Law

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

This is a first-year seminar required of graduate students in the sociology program. The proposed seminar is the sociology course listing that complements an approved course listing for our Criminology & Law program graduate students, CCJ 6936. Both Sociology and Criminology & Law graduate students must take this seminar as part of their professional development training.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

A graduate student who successfully completes this seminar will be able to:

1. Identify faculty research interests that align with student research interests.
2. Apply professional ethics in your discipline and field of study.
3. Identify and engage with relevant professional associations.
4. Review and critique research literature in your topical specialty.
5. Develop a curriculum vita that reflects your professional accomplishments and goals.
6. Present your literature review to the class in the format of a conference presentation.

3. Reports from faculty interviews 1

Assignments:

Reading for next week: ASA and/or ASC Codes of Ethics

Reading for next week: Docs on Fac Visitor 5

WEEK 5:

DEADLINE: Faculty Interviews 2

In-class activities:

1. Reports from faculty interviews 2
2. Professional Associations: Codes of Ethics
3. Faculty visitor 5:

Assignments:

Reading for next meeting: Docs on Fac Visitor 6

Reading for next week: UF IRB 02 URLs

WEEK 6:

DEADLINE: Preferences for Topic Panels

DEADLINE: Analytical Memo 2 due, electronic submission in Canvas

In-class activities:

1. UF IRB procedures: IRB02, Training, Informed Consent
2. Reports from faculty interviews 3
3. Faculty visitor 6:

Assignments:

Reading for next week: Docs on Analytical Memo 3

Reading for next week: Docs on Fac Visitor 7

Reading for next week: Topic panels

WEEK 7:

In-class activities:

1. Analytical Memo 3
3. Faculty visitor 7:
4. Topic panels

Assignments:

Analytical Memo 3

Reading for next week: Docs for Topic panel 1

Reading for next week: Docs on Curriculum vitae

Reading for next meeting: ASA Job Postings or ASC Employment Exchange

WEEK 8:

In-class activities:

1. Topic Panel 1,
2. Curriculum vitae
3. Professional Associations: Job Banks

Assignments:

Curriculum Vitae

Reading for next week: Docs on Topic panel 2

Reading for next week: Docs on Topic panel 3

Reading for next week: Docs on analytical lit reviews

WEEK 9:

DEADLINE: Analytical Memo 3 due, electronic submission in Canvas

In-class activities:

1. Topic Panel 2,
2. Topic Panel 3,

3. Analytical literature reviews

Assignments:

Analytical literature reviews

Reading for next week: Docs on Topic panel 4

Reading for next week: Docs on Topic panel 5

WEEK 10:

In-class activities:

1. Topic Panel 4,
2. Topic Panel 5,
3. Analytical Memo 4

Assignments:

Analytical Memo 4

Reading for next week: Docs on Topic panel 6

Reading for next week: Docs on Topic panel 7

Reading for next week: Annual Evaluation, Committee Approval, and Plan of Study forms (Soc or Crim) for Strategic planning

WEEK 11:

DEADLINE: Individual development plans (IDPs) and mentor-mentee forms due, electronic submission in Canvas

DEADLINE: Curriculum Vitae, electronic submission in Canvas

In-class activities:

1. Topic Panel 6,
2. Topic Panel 7,
3. Strategic planning for Spring 2023 and beyond

Assignments:

Reading for next week: Docs on Topic panel 8

Reading for next week: Docs on Topic panel 9

WEEK 12:

DEADLINE: Analytical Memo 4 due, electronic submission in Canvas

In-class activities:

1. Topic Panel 8,
2. Topic Panel 9,
3. Discussion about presentations of literature reviews

Assignments:

Presentations of literature reviews

Reading for next week: Docs on Topic panel 10

WEEK 13:

DEADLINE: Presentations of literature reviews

In-class activities:

1. Topic panel 10,
2. Presentations of literature reviews, part 1

WEEK 14:

DEADLINE: Presentations of literature reviews

In-class activities:

1. Presentations of literature reviews, part 2

WEEK 15:

DEADLINE: Literature reviews due, electronic submission in Canvas

DEADLINE: Presentations of literature reviews

In-class activities:

1. Presentations of literature reviews, part 3

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Assignment	Points/ Percentage
Certifications	5
Individual Development Plan and Mentor-Mentee Contact Form	5
Faculty interviews and presentations	10
Analytical memo 1	5
Analytical memo 2	15
Analytical memo 3	10
Analytical memo 4	10
Moderation of topic panel	5
Curriculum vita	5
Analytical literature review	25
Presentation of analytical literature review	5
TOTAL	100

Final Grades. Your grade is determined based on your on-time submission or presentation of the required work, and mastery of said work. A = completion of all assignments with mastery (93+ points)

A- = all assignments completed and approaching mastery (90-92.5 points)

B+ = almost all assignments completed and approaching mastery (87.5-89.5 points)

B = more than one incomplete assignment and approaching mastery (83-87 points)

B- to F = several assignments not completed, course must be repeated (82.5 points or fewer)

Determination of grades:

For some items, doing the work on time and submitting or presenting yields full points. This applies to 1) certificates, 2) IDP and mentor-mentee forms, 3) faculty interviews and presentations, 4) moderation of topic panels, and 5) curriculum vitae.

For other items, there are grading criteria for obtaining full credit and rubrics for determining partial credit. This applies to 1) the analytical memos 1-4, 2) the analytical literature review, and 3) the presentations of lit reviews. Below we provide the rubric for the most important assignment, the analytical literature review. Rubrics for the analytical memos have similar criteria since those are the sources used to write the analytical literature review. All rubrics are similar in terms of how full credit, most credit and partial credit are determined.

Rubric for the analytical literature review:

Formatting:

Full credit: The document identifies the author, has a clear title and section headings, and professional formatting for line spacing, margins, font size and page numbers

Most credit: The document complies with professional formatting requirements but is missing one formatting element

Partial credit: The document complies with professional formatting requirements but is missing multiple formatting elements

1. Introduction

Full credit: The intro has two paragraphs: the first clearly sets forth the key concepts and problem to be addressed, the second clearly states the importance of the topic

Most credit: The intro has two paragraphs: the first more or less sets forth the key concepts and problem to be addressed, the second somewhat states the importance of the topic

Partial credit: The intro has two paragraphs, but one or the other is unclear, whether about the key concepts and problem to be addressed, or the importance of the topic

2. Literature review

Full credit: The review discusses 3-4 key themes in a paragraph each that arise from the literature, provides a visualization that illustrates relationships among the key concepts discussed, discusses the key relationships of interest, and cites specific sources when discussing previous work

Most credit: The review addresses all of the elements required, but one paragraph on the themes, or the visualization, or its discussion is unclear, or a few arguments from previous work are posed without citations

Partial credit: The review addresses most of the elements required, but two or more paragraphs on the themes, and/or the visualization, and/or its discussion is unclear, or a several arguments from previous work are posed without citations

3. Gaps and limitations

Full credit: Three different gaps or limitations are clearly identified and differentiated, and discussed in a paragraph each, making clear the importance of each

Most credit: Three different gaps or limitations are more or less identified and differentiated, and discussed in a paragraph each, making more or less clear the importance of each

Partial credit: Either fewer than three gaps or limitations are identified and differentiated, there are fewer than three paragraphs, and/or the importance of the gaps is not clear

4. Priority research questions

Full credit: Three research questions are each discussed in a separate paragraph, which clearly states each question, noting their key concepts and key aspects of their relationships, the general methodological approach to be employed, the importance of addressing the question, and what is gained by answering the question

Most credit: Three research questions are each discussed in a separate paragraph, which more or less states each question, noting the general methodological approach to be employed, the importance of addressing the question, and what is gained by answering the question

Partial credit: Fewer than three research questions are each discussed in a separate paragraph, which states each question, noting the general methodological approach to be employed, the importance of addressing the question, and what is gained by answering the question; or one or more paragraphs are unclear about these elements

5. Expectations about findings

Full credit: Expectations about findings for all three research questions are described in specific terms for each research question, and implications of confirming expectations are clearly discussed

Most credit: Expectations about findings for all three research questions are described in more or less specific terms for each research question, and implications of confirming expectations are more or less clearly discussed

Partial credit: Expectations about findings for fewer than the three research questions are described, along with implications of confirming expectations, or expectations and implications are unclearly discussed

6. References cited

Full credit: Complete references for all citations are provided in a consistent citation format

Most credit: Complete references for nearly all citations are provided in a more or less consistent citation format.

Partial credit: References are missing for several citations, or are often lacking information required to be complete, or are provided in a frequently varying citation format.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Stephen Perz, Professor of Sociology

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

• <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

CCJ 6936 – PROSEMINAR IN CRIME, LAW AND JUSTICE
SYA 7933 – SEMINAR IN PROFESSIONAL DEVELOPMENT IN SOCIOLOGY
Fridays Periods 7-9 (1:55-4:55 PM)

Instructor / Moderator: Stephen G. Perz, Department of Sociology and Criminology & Law
Office: 3219 Turlington Hall (go to the Department Main Office, not my faculty office, 3115 Turlington)
Office hours: MWF 12:50 PM – 1:40 PM
Office Phone: 294-7186
E-mail: sperz@ufl.edu
Course Canvas Page:
Zoom link for office hours:

Course Overview:

This seminar provides a review of the practices of your chosen profession, whether in careers tied to sociology or criminology and law. This seminar will provide you a space for dialogue with faculty in our department about their career trajectories so you can chart your own. You will also practice selected professional activities such as engaging relevant research literatures, developing your own proposals for research, and situating your research contributions in the broader context of your chosen field of study. In the process, you will gain familiarity with the professional standards in your chosen field, as regards selected elements of research methods, research ethics, science communication, and other elements of professional practice in the conduct of research.

Learning Objectives:

1. Identify faculty research interests that align with student research interests.
2. Apply professional ethics in your discipline and field of study.
3. Identify and engage with relevant professional associations.
4. Review and critique research literature in your topical specialty.
5. Develop a curriculum vita that reflects your professional accomplishments and goals.
6. Present your literature review to the class in the format of a conference presentation.

This course meets the outcome and assessment of the first Professional Behavior SLO: Demonstrate broad understanding and application of professional ethics, assessed by

completing human subject research protection training. Completing the course serves as the assessment of the second Professional Behavior SLO: Demonstrate broad understanding and application of the role of the professional sociologist or professional criminologist.

Required Readings: All materials are available online for free.

Teaching Philosophy:

My teaching philosophy of graduate professional development training is based on the premise that seminar members are early career professionals who are motivated to become competent criminologists and sociologists. As early career professionals, you will invest time and effort in developing your mastery of critical skills important for pursuing your career objectives.

I therefore avoid student-oriented textbooks and instead feature materials produced and consumed by professional sociologists and criminologists. We will also avoid rote learning methods and instead favor engagement with professionals and activities that focus on the practice of professional conduct. This seminar features dialogues between seminar members and early career faculty in our department, focusing on the research practices they employ as professional social scientists. We will also have occasion to discuss teaching as a key professional activity.

Similarly, the activities and assignments will focus on the use of research techniques for data collection, data analysis, and technical or professional writing. Many assignments yield research products that can be used, in part or in whole, to meet subsequent program requirements and to build a strong research record. Some assignments and classroom activities are structured as group efforts, wherein I will defined groups in some activities and seminar members will do so in others. Collaboration is common in social science research, whether on teams formed organically by their members or teams constituted by administrators.

Assignments and Grading

I will assess your performance based on your participation in the assigned activities and your mastery and on-time delivery of the resulting products. The table below lists the assignments and the percentages they contribute to your course grade. You will not be assessed on the basis of tests or quizzes as indicators of performance. This class has no final exam.

Assignment	Points/ Percentage
Certifications	5
Individual Development Plan and Mentor-Mentee Contact Form	5

Faculty interviews and presentations	10
Analytical memo 1	5
Analytical memo 2	15
Analytical memo 3	10
Analytical memo 4	10
Moderation of topic panel	5
Curriculum vita	5
Analytical literature review	20
Presentation of analytical literature review	10
TOTAL	100

Course grades will be assigned in accordance with UF grading policies, <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Certifications. Early in the seminar, you will need to do three (3) online trainings via UF portals to get three certifications. These are 1) FERPA, 2) Sexual Harassment Prevention, and 3) CITI Research Ethics. All are relevant to professional conduct in general and specifically to the performance of research at UF. Instructions for completing these certifications are available via this assignment in our course Canvas website.

Individual Development Plan and Mentor-Mentee Contact Form. These are departmental requirements for graduate students. Everyone needs to complete the Individual Development Plan (IDP), which will help you define your course of study and thereby guide you through graduate school. The Mentor-Mentee Contact Form is to help you set professional goals each semester with your faculty mentor. As you are beginning, it is your task to meet with your appointed departmental mentor, even if your goal becomes identification of a different mentor. Both have deadlines this semester, which are indicated in this course syllabus for your convenience. Both forms are available in the assignments on our course Canvas website.

Faculty Interviews and Presentations. Each seminar member will select a departmental faculty member for interviews. You will be given access to departmental faculty CVs to guide your selection. You also need to review in detail the CV of your chosen faculty interviewee. You then need to contact that faculty member to set a time and then meet with them for the interview. The interview may be in-person or via Zoom as you and the faculty member prefer. Record the responses of the faculty interviewee and come to seminar to present a 10-15 minute report about that faculty member. Instructions and CVs for faculty appear among the assignments in our course Canvas website.

Assistant Professor Visitors. During the course of the semester, Assistant Professors (tenure-track faculty) will visit our seminar to talk about their research. Each of them will provide the class with one publication (or manuscript for submission) about their work for our review. Your

job is to review that document and identify 2-3 questions about their work. When they visit the class, we will then have the opportunity to ask them about their research and thereby engage in dialogue. This is important for your professional development, since those professionals are just a few years ahead of where you are now. Take advantage of this important opportunity to ask them about e.g. how they came to be interested in their research, how they opted for the theories or methods they employ, how their research questions have changed over time, and related issues of professional development. Your participation in these dialogues (and all other class discussions) informs my grading of your participation and engagement (discussed below). The readings for the Assistant Professor visits will be available on our course Canvas website.

Analytical Memos. During the course of the semester, you will perform a review of previously published scholarly literature as the groundwork to proposing your own research questions. The products from those literature review activities will be your analytical memos. You will conduct your literature review in four parts, and thus produce and submit four analytical memos. In the first part, you will identify the key terms for the central concepts in your chosen research area (within sociology or criminology). You will submit a review of those key concepts as Analytical Memo 1. You will then use those keywords to search for and select key publications in your home discipline, which you will then organize and summarize in Analytical Memo 2. In the third part, you will use those keywords again to consider publications in other social science disciplines (e.g., anthropology, economics, political science, geography, psychology) in Analytical Memo 3. In the fourth part, you will consider other disciplines outside of the social sciences, including interdisciplinary work, humanities (e.g. history, religion, etc.), race/ethnic studies (African American Studies, etc.) or area studies (Latin American Studies, etc.) in Analytical Memo 4. In Analytical Memos 2, 3 and 4 you will submit matrixes (tables) with summaries of specific aspects of the previous work. Those tables will also call for you to begin to identify gaps and limitations in individual publications. This will require critical analysis of what is missing or what previous researchers themselves identified as limitations in their work. Instructions and other documents for the Analytical Memos are available in our course Canvas website.

Moderate a topic panel. Several times during the course of the semester, we will hold topic panels with one or more guest faculty. You will moderate one of those topical panels by asking the guest faculty questions about their experience with regard to the panel's topic. For each topic panel, you will read one or more documents about the topic to become more informed about it, as well as to help you identify questions for panelists when you moderate your topic panel. Moderating a topical panel means identifying 4-6 questions for the panelists to address. Each graduate student will moderate one of the eight topic panels. I anticipate that most panels will have more than one grad student moderating, so it will be important for collaborating grads to coordinate the moderation, e.g. decide who asks which questions. On the topic panels, I will also be your helper and ask the panelists questions as well. Readings for topical panels will be available in our course Canvas website.

Curriculum vitae. All professionals develop and regularly revise a curriculum vita (CV), a document like a resume that summarizes their accomplishments. You will develop your CVs in this course, organized around three broad areas by which professional scholars are typically evaluated in academic organizations: 1) research, 2) teaching and 3) service. Your vita will

identify your accomplishments, works in progress, and professional goals. More on the format and content of your CV is available via our course Canvas website. You will see numerous examples of CVs from departmental faculty during the course of this semester.

Analytical Literature Review. The Analytical Memos provide the basis for an Analytical Literature Review. Whereas Analytical Memos 2, 3 and 4 feature tables with details about individual publications in your topic, the Analytical Literature Review will be a narrative that synthesizes insights from those Analytical Memos together as a whole. In particular, the Analytical Literature Review will be organized around addressing two main questions: 1) what do we know about your topic from previously published work, and 2) what are the gaps and limitations in that work overall? Identifying those overall gaps and limitations provides a basis to help you define your research focus by delineating how you can go beyond previous work and make a further contribution in your future research. You will write and submit your Analytical Literature Review, and present it to the seminar in the form and style of a professional conference presentation. Instructions and other documents for the Analytical Literature Review are available in our course Canvas website.

Final Grades. Your grade is determined based on your on-time submission or presentation of the required work, and mastery of said work.

A = completion of all assignments with mastery (93+ points)

A- = all assignments completed and approaching mastery (90-92.5 points)

B+ = almost all assignments completed and approaching mastery (87.5-89.5 points)

B = more than one incomplete assignment and approaching mastery (83-87 points)

B- to F = several assignments not completed, course must be repeated (82.5 points or fewer)

Course Policies:

Attendance Policy: Attendance and engagement are elements of good professional practice. I expect you to attend and participate actively in all seminars. If you know you will miss beforehand, please notify me beforehand and we will discuss. Absences for documented health issues and professional activities that conflict with seminar attendance (e.g. attending a conference) are generally accepted.

COVID Policies: This is an in-person residential course, which means we will meet at scheduled times in the classroom indicated. This accords with UF guidance on COVID as of the beginning of the Fall 2021 semester. For on-campus classes and in-person meetings for class and office hours, you must comply with UF guidelines on COVID related practices. Failure to do so can lead to a report to the Office of Student Conduct and Conflict Resolution. There are likely to be updates on UF guidance about COVID, which can be found here:

<https://coronavirus.ufl.edu/university-updates/>.

Makeup and Late Work policy: On-time submission of professional work is an element of good professional practice. Assignments all have specific due dates and times with instructions for submission. If you are unable to complete an assignment by the deadline, please contact me as

soon as possible so we can discuss your situation and arrive at a clear resolution. Late work for documented health issues or unusually heavy professional activities generally result in granting of an extension.

Grading Policy: Assignments are designed to build professional competency toward demonstrating mastery of the material. Assignments should be completed with professional integrity: do your own work, as that is good professional practice and you benefit more. I will provide detailed instructions for graded work. Some graded work, like certifications, will get full credit if they are completed on time and documented. Other graded work, like Analytical Memos, will have rubrics to guide my grading. I will provide comments and suggestions on assignments with grading rubrics, and assign points based on performance relative to the rubric.

University Policies and Services:

Accommodation for students with disabilities: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations. More information is available at <https://disability.ufl.edu/>.

UF Counseling & Wellness Services: Resources are available on-campus for students having personal problems or lacking a clear career and academic goals which interfere with their academic performance. These resources include:

1. U Matter, We Care, 392-1575, umatter@ufl.edu, for students in distress or concerned about other students;
2. University Counseling & Wellness Center, 392-1575, counseling.ufl.edu, crisis and non-crisis services, personal and career counseling;
3. Student Health Care Center, 392-1161, shcc.ufl.edu, personal counseling;
4. University Police Department, 392-1111, 911 for emergencies, police@ufl.edu.
5. UF Shands Emergency Room / Trauma Center: 733-0111, ufhealth.org/emergency-room-trauma-center, for medical emergencies

Academic Honesty: As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University." More information is available at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

Online Communication Etiquette: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. More information is available at <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>.

UF Technical Support: For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at <https://helpdesk.ufl.edu/> or 352-392-HELP (4357), Option 2.

In-class Recording of Lectures. As outline in HB 233, Section 1004.097, students may record faculty lectures, for one or more of three purposes: 1) for the student's own personal educational use, 2) in connection with a complaint to the University where the recording is made, or 3) as evidence in or in preparation for, a criminal or civil proceeding. Students do not need faculty permission to record. Students may not share recordings without the prior consent of the faculty member. More details are available at <http://aa.ufl.edu/policies/in-class-recording/>.

***TENTATIVE* COURSE SCHEDULE**

Date	Seminar Activities	Readings, Assignments, Deadlines
	Week 1: 1. Introductions 2. Review course syllabus 3. Research agendas, IDPs, Mentor forms 4. Faculty Interviews, CVs 5. Analytical memos	Assignment: Certifications for FERPA, Sexual Harassment Prevention, IRB 803 Research Ethics Assignment: Individual Development Plan (IDP) and Mentor-Mentee Contact form Reading for next week: Faculty CVs, send me your three preferences for faculty interviews Reading for next week: Instructions for Analytical Memo 1
	Week 2: 1. Identifying research foci 2. Search engines to review literature 3. Analytical Memo 1 4. Decide on faculty interviews	Assignment: Faculty Interviews Assignment: Analytical Memo 1 Reading for next week: Docs on Fac Visitor 1 Reading for next week: Docs on Fac Visitor 2 Reading for next week: Docs on Analytical Memo 2
	Week 3: 1. Faculty visitor 1: 2. Faculty visitor 2: 3. Analytical Memo 2	DEADLINE: Certifications due, electronic submission in Canvas, AND e-mail to Ardelt & Hathcox Assignment: Analytical Memo 2 Reading for next week: Docs on Fac Visitor 3 Reading for next week: Docs on Fac Visitor 4
	Week 4: 1. Faculty visitor 3: 2. Faculty visitor 4: 3. Reports from faculty interviews 1	DEADLINE: Analytical Memo 1 due, electronic submission in Canvas DEADLINE: Faculty Interviews 1 Reading for next week: ASA and/or ASC Codes of Ethics Reading for next week: Docs on Fac Visitor 5
	Week 5: 1. Reports from faculty interviews 2	DEADLINE: Faculty Interviews 2 Reading for next meeting: Docs on Fac Visitor 6

	<p>2. Professional Associations: Codes of Ethics</p> <p>3. Faculty visitor 5:</p>	<p>Reading for next week: UF IRB 02 URLs</p>
	<p>Week 6:</p> <p>1. UF IRB procedures: IRB02, Training, Informed Consent</p> <p>2. Reports from faculty interviews 3</p> <p>3. Faculty visitor 6:</p>	<p>DEADLINE: Preferences for Topic Panels</p> <p>DEADLINE: Analytical Memo 2 due, electronic submission in Canvas</p> <p>Reading for next week: Docs on Analytical Memo 3</p> <p>Reading for next week: Docs on Fac Visitor 7</p> <p>Reading for next week: Topic panels</p>
	<p>Week 7:</p> <p>1. Analytical Memo 3</p> <p>3. Faculty visitor 7:</p> <p>4. Topic panels</p>	<p>Assignment: Analytical Memo 3</p> <p>Reading for next week: Docs for Topic panel 1</p> <p>Reading for next week: Docs on Curriculum vitae</p> <p>Reading for next meeting: ASA Job Postings or ASC Employment Exchange</p>
	<p>Week 8:</p> <p>1. Topic Panel 1,</p> <p>2. Curriculum vitae</p> <p>3. Professional Associations: Job Banks</p>	<p>Assignment: Curriculum Vitae</p> <p>Reading for next week: Docs on Topic panel 2</p> <p>Reading for next week: Docs on Topic panel 3</p> <p>Reading for next week: Docs on analytical lit reviews</p>
	<p>Week 9:</p> <p>1. Topic Panel 2,</p> <p>2. Topic Panel 3,</p> <p>3. Analytical literature reviews</p>	<p>DEADLINE: Analytical Memo 3 due, electronic submission in Canvas</p> <p>Assignment: Analytical literature reviews</p> <p>Reading for next week: Docs on Topic panel 4</p> <p>Reading for next week: Docs on Topic panel 5</p>
	<p>Week 10:</p> <p>1. Topic Panel 4,</p> <p>2. Topic Panel 5,</p> <p>3. Analytical Memo 4</p>	<p>Assignment: Analytical Memo 4</p> <p>Reading for next week: Docs on Topic panel 6</p> <p>Reading for next week: Docs on Topic panel 7</p>

		Reading for next week: Annual Evaluation, Committee Approval, and Plan of Study forms (Soc or Crim) for Strategic planning, at https://soccrim.clas.ufl.edu/resources/departamental-forms/
Week 11:	1. Topic Panel 6, 2. Topic Panel 7, 3. Strategic planning for Spring 2023 and beyond	DEADLINE: Individual development plans (IDPs) and mentor-mentee forms due, electronic submission in Canvas DEADLINE: Curriculum Vitae, electronic submission in Canvas Reading for next week: Docs on Topic panel 8 Reading for next week: Docs on Topic panel 9
Week 12:	1. Topic Panel 8, 2. Topic Panel 9, 3. Discussion about presentations of literature reviews	DEADLINE: Analytical Memo 4 due, electronic submission in Canvas Assignment: Presentations of literature reviews Reading for next week: Docs on Topic panel 10
Week 13:	1. Topic panel 10, 2. Presentations of literature reviews, part 1	DEADLINE: Presentations of literature reviews
Week 14:	1. Presentations of literature reviews, part 2	DEADLINE: Presentations of literature reviews
Week 15:	1. Presentations of literature reviews, part 3	DEADLINE: Literature reviews due, electronic submission in Canvas DEADLINE: Presentations of literature reviews

Course|New for request 18554

Info

Request: URP 6XXX Community Engagement

Description of request: I, Kathryn Frank, at the request of my department, am proposing that URP6931 Special Topics: Community Engagement be recognized as a new course, Community Engagement, with a distinct course number, 6XXX (to be determined). I developed this elective course in response to the 2019 re-accreditation assessment of the MURP program. The proposed course details are based on teaching the course three times.

Submitter: Kathryn Frank kifrank@ufl.edu

Created: 5/11/2023 9:02:29 AM

Form version: 1

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:

URP

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

6

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:

Intermediate

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title

*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Community Engagement

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Community Engagement

Degree Type

Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Spring

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Clinical Instruction [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type

Please select the type of course being created. These categories are required by the Florida Board of Governors.

Response:
Lecture

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course provides instruction and hands on experience with community engagement and stakeholder collaboration, especially within an urban and regional planning context and in support of diversity, equity, and inclusion.

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Undergraduate courses level 3000 and above must have a prerequisite.

Please verify that any prerequisite courses listed are active courses.

Response:

N/A

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
- “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
- If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

Example:

- Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
- Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2#### or greater, FAS2#### or greater, BOT2#### or greater, PCB2#### or greater, BCH2#### or greater, ZOO2#### or greater, MCB 2#### or greater, CHM 2#### or greater, PHY 2#### or greater, or STA 2#### or greater).

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The course has been taught three times under URP6931 Special Topics. The course was created in response to a 2019 accreditation assessment of the Master of Urban and Regional Planning (MURP) program. The course will serve as an elective for the MURP. The course is also of interest to a wide range of graduate majors at UF that support professions having direct, interpersonal interactions with the public and partnering organizations. For example, the Spring 2023 class included the majors of political science, health sciences, and construction management.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

- Provide rationale, requirements, and ethics for community engagement in an urban and regional planning context, and including for diverse communities in support of equity and inclusion.
- Apply the principles of communication for outreach to the diverse public, decision makers, and

stakeholder groups.

- Select, design, and conduct engagement methods within a community engagement process.
- Design and conduct the phases of a community engagement process, using consensus building and relating to formal planning procedures.
- Recognize community interests, power dynamics, and conflict, and facilitate empowerment of excluded groups and negotiation.
- Direct cross-jurisdictional, inter-agency, inter-disciplinary, and multi-stakeholder collaboration.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

- Lauria and Slotterback (2020). Introduction. In Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement, RTPi Library Series, Mickey Lauria and Carissa Slotterback, editors.
- Arnstein (1969). A ladder of citizen participation, JAPA
- Planning with Diverse Communities (2019) – all
- Dedenbach, Frank, Larsen, and Redden (2020). Building the foundation for Arnstein's ladder: community empowerment through a participatory neighborhood narrative process. In Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement, RTPi Library Series, Mickey Lauria and Carissa Slotterback, editors.
- A Planner's Guide to Meeting Facilitation (2019) – all
- Facilitation Tools (Section 3), Facilitation Basics (NOAA 2017)
- Cross Talk: Make Sure Your Messages to Nonplanning Audiences Don't Get Lost in Translation, Planning (magazine) (McIntyre 2019)
- Don't Be Such A Scientist: Talking Substance in an Age of Style (Olson 2009) – Chapter 1
- Fahmi and Chandra-Putra (2020). Community-based village planning for the reconstruction of post-tsunami and post-conflict Aceh. In Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement, RTPi Library Series, Mickey Lauria and Carissa Slotterback, editors.
- Taking the Communications High Ground, PAS Memo, March/April 2012, American Planning Association (Rooney, Hart, and Johnson)
- Planners and the Digital Commons: Perspectives, Techniques, and Engagement, PAS Memo January/February 2014, American Planning Association (Shuler)
- Laskey and Nicholls (2020). Jumping off the ladder: Participation and insurgency in Detroit's urban planning. In Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement, RTPi Library Series, Mickey Lauria and Carissa Slotterback, editors.
- Crafting Charrettes that Transform Communities, PAS Memo, November/December 2018, American Planning Association (Madill, Lennertz, and Beyea)
- Breaking Robert's Rules (2006) – Chapters 1-2
- Managing Public Disputes (Carpenter and Kennedy 1988) – pp. 1-38 (updated)
- Getting to Yes: Negotiating Agreement Without Giving In, Revised Edition (Fisher and Ury 2011) – Introduction & Chapter 1
- Negotiation Processes in Urban Redevelopment Projects: Dealing with Conflicts by Balancing Integrative and Distributive Approaches, Planning Theory and Practice 16(3):363-384 (Baarveld, Smit and Dewulf 2015)
- Thinking Differently for an Age of Complexity (Chapter 1), Planning with Complexity, 2nd Edition (Innes and Booher 2018)
- What is Collaboration? (Chapter 1), Beyond Consensus: Improving Collaborative Planning and Management (Margerum 2011)
- Producing Results through Interorganizational Networks (Chapter 8), Beyond Consensus: Improving Collaborative Planning and Management (Margerum 2011)

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Module 1 – Community Engagement Rationale, Requirements, and Ethics

Week 1

- Overview of the course and teambuilding
- Democratic principles and civic responsibilities

Week 2

- Diverse communities and perspectives in planning
- History of community engagement in planning, including institutional requirements and incentives

Week 3

- 'Government in the sunshine' and other procedural and transparency laws
- Role of planners as facilitators and advocates
- Organizations and related fields supporting community engagement
- Power and politics in planning, trust in government, meaningful engagement, and empowerment
- Additional ethical considerations, such as privacy
- Overview of engagement techniques, to prepare for leading one classroom activity

Module 2 – Interpersonal, Public, and Cross-Cultural Communications

Week 4

- Importance of planning communications and incentives
- Principles of effective communications, including perspective-taking, multi-culturalism, partnering, visualization, and experiential learning
- Place-making and community-building

Week 5

- Techniques of planning communications, including interpersonal and technological/multimedia
- Rhetoric, biases, and fakery in communications

Module 3 – Engagement Methods

Week 6

- Types of meetings, and their design and facilitation
- Specific engagement activities, including principles and methods

Week 7

- Meetings and engagement activities (continued)

Week 8

- Meetings and engagement activities (continued)
- Interpreting the results and using the products from engagement activities
- Evaluating specific engagement activities

Week 9

- None (focus on classroom activities and group project)

Week 10 – SPRING BREAK NO CLASS

Module 4 – Consensus Building and Negotiation

Week 11

- Parliamentary procedures and Roberts Rules of Order
- Overview of the consensus building approach as a model for planning
- Cases of consensus building-based planning processes

Week 12

- None (focus on case profile presentations and group project)

Week 13

- History of negotiation and alternative dispute resolution
- Principles and practices of negotiation, including principled vs. positional negotiation, best alternative to a negotiated agreement (BATNA), and mediation

Week 14

- Managing conflict and disruptive behaviors
- Applications of negotiation and alternative dispute resolution to planning

Module 5 – Organizational Collaboration

Week 15

- Rationale and principles of collaborative organizations
- Types of collaborative organizations, such as metropolitan/regional compacts, grassroots associations, and learning communities
- Evaluating collaborative organizations

Week 16

- Course review and conclusion

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Attendance and preparation - Come prepared for class every week and participate. Attendance is checked each week. 20%

Engagement meeting - Individually attend and report on a community engagement meeting. 15%

Lead one classroom activity - In a small group, design and lead a classroom engagement activity. 15%

Case profile presentation - In a small group, present in class a profile of a real-world planning process that had extensive community engagement and/or interorganizational collaboration. 20%

Group project - In a group, design and conduct a real-world community engagement activity. 30%

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Kathryn Frank, Ph.D., Associate Professor in the Department of Urban and Regional Planning

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Response:

Yes

Accommodations

Please confirm that you have read and understand the University of Florida Accommodations policy.

A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Response:

Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/public-results/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Response:

Yes

COMMUNITY ENGAGEMENT

URP 6931, 3 CREDITS, SPRING 2023

MONDAYS 12:50-3:50PM

RINKER 220



INSTRUCTOR: Dr. Kathryn Frank, ARCH 460, kifrank@ufl.edu, 352-294-1495

OFFICE HOURS: Mondays 4-5pm or by appointment.

COURSE WEBSITE: See Canvas, <http://lss.at.ufl.edu>

COURSE COMMUNICATIONS: Please send messages through the course management system (Canvas). You will receive a reply within 24 hours during the workweek and within 48 hours on weekends.

REQUIRED TEXTS: No textbook purchases are required. All required readings are available through course reserves.

PREREQUISITE KNOWLEDGE AND SKILLS: None.

COURSE GOAL: This course will provide instruction and hands on experience with community engagement and stakeholder collaboration, especially within an urban and regional planning context and in support of diversity, equity, and inclusion.

COURSE LEARNING OBJECTIVES: By the end of this course, students will be able to:

- Provide *rationale, requirements, and ethics* for community engagement in an urban and regional planning context, and including for diverse communities in support of equity and inclusion.
- Apply the principles of *communication* for outreach to the diverse public, decision makers, and stakeholder groups.
- Select, design, and conduct *engagement methods* within a community engagement process.
- Design and conduct the phases of a community engagement process, using *consensus building* and relating to formal planning procedures.

- Recognize community interests, power dynamics, and conflict, and facilitate *empowerment* of excluded groups and *negotiation*.
- Direct cross-jurisdictional, inter-agency, inter-disciplinary, and multi-stakeholder *collaboration*.

INSTRUCTIONAL METHODS:

The course consists of 5 modules corresponding to the learning objectives above: 1) Community engagement rationale, requirements, and ethics, 2) Interpersonal, public, and cross-cultural communications, 3) Engagement methods, 4) Consensus building and negotiation, and 5) Organizational collaboration.

The course will be a combination of regular classes and experiential learning. Classes will include instructor, guest, and student presentations, discussions of the required readings, in-class engagement activities, and group project meetings. The course will include two field trips, dates and times to be determined based on student and event availability. One field trip will be attendance at a local commission meeting. The second will be based on the group project. The group project will also require engagement meetings outside of class times, which will be collectively determined as the project takes shape.

The assignments consist of leading two in-class activities, attending and reporting on one community engagement meeting, profiling one case of a community engagement process, and conducting one applied, experiential group project.

All classroom materials, such as presentation slides and activities, will be posted on the course website.

COURSE POLICIES

ATTENDANCE POLICY: In person class attendance is required. Readings for each module should be completed prior to the class day they are assigned in the schedule below. Attendance will be taken at each class. If you miss a class, check Canvas and inquire with classmates. Absence can be waived for UF-excused reasons with prompt communication and documentation provided in advance if possible.

LATE/MAKE-UP POLICY: *Late assignments* will be marked down 10% of the total grade if they are not turned in by the deadline, and then an additional 10% for each week they are late (including weekends). *Makeup work* is allowed for UF-excused reasons with prompt documentation. See <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. The terms of

making up missed work will be determined by the instructor in discussion with the student.

ASSIGNMENT POLICY: Each assignment has a grading rubric based on the instructions. In general, full credit requires the following: attending to the instructions, demonstrating a solid understanding of the course topics, research and analysis if required, compelling writing and presentation, proper source attribution, and timely submittal.

Students MUST follow the University's Honor Code, which includes issues of cheating, plagiarism, and honesty. See <http://www.correspondencestudy.ufl.edu/students/handbook/Plagiarism/PlagiarismAlert.html> for guidance to avoid plagiarism and other Honor Code violations.

Each student must submit work that is conducted by them alone (unless group collaboration is specified) and original to this course, i.e., not the student's work from another course (unless it is used as a reference and properly cited). ***The instructor will screen assignments for plagiarism using the text-matching tool Turnitin*** (<http://turnitin.com/static/index.html>).

UF POLICIES

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all class discussions and email messages. The instructor and students will together establish ground rules at the beginning of the semester.

GETTING HELP

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

GRADING POLICIES

ASSIGNMENTS:

<i>Assignment</i>	<i>Instructions</i>	<i>% of grade</i>
<i>Attendance and preparation</i>	Come prepared for class every week and participate. Attendance is checked each week.	20%
<i>Engagement meeting</i>	Individually attend and report on a community engagement meeting.	15%
<i>Lead one classroom activity</i>	In a small group, design and lead a classroom engagement activity.	15%

<i>Case profile presentation</i>	In a small group, present in class a profile of a real-world planning process that had extensive community engagement and/or interorganizational collaboration.	20%
<i>Group project</i>	In a group, design and conduct a real-world community engagement activity.	30%

GRADING SCALE:

The relationship between letter grades and numeric grades is: A (≥ 94.0), A- (≥ 90.0), B+ (≥ 87.0), B (≥ 83.0), B- (≥ 80.0), C+ (≥ 77.0), C (≥ 73.0), C- (≥ 70.0), D+ (≥ 67.0), D (≥ 63.0), D- (≥ 60.0), and E (<60.0). Where A=4.0, A-=3.67, B+=3.33, B=3.0, B-=2.67, C+=2.33, C=2.0, C-=1.67, D+=1.33, D=1.0, D-=0.67, E=0.0.

INSTRUCTOR/COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals.

Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

ABOUT PROFESSOR FRANK

Dr. Kathryn Frank is an Associate Professor in Urban and Regional Planning and the director of the Florida Center for Innovative Communities. She specializes in community engagement and capacity building for sustainability, resilience, and social equity. Specific areas of expertise include collaborative planning, neighborhood planning, and youth participation. She has led community engagement action research projects in the contexts of urban social equity planning, sea level rise adaptation, ecosystem and watershed management, regional planning, and small town and rural planning. Prior to academia, she was a planning consultant and environmental engineer. She received her doctorate in City and Regional Planning from Georgia Tech and her master's degree in Community and Regional Planning from the University of Oregon.

COURSE SCHEDULE

Assignments are due the day before class (Sundays). Readings are due on the day they are listed. The schedule may shift slightly to accommodate the field trips, guest speakers, and group project. Changes will be discussed in advance.

Module 1 – Community Engagement Rationale, Requirements, and Ethics

Week 1 – January 9

Topics

- Overview of the course and teambuilding
- Democratic principles and civic responsibilities
- Diverse communities and perspectives in planning
- History of community engagement in planning, including institutional requirements and incentives

Assignments

- Start meeting assignment
- Sign up to lead one classroom activity

Week 2 – January 16 HOLIDAY NO CLASS – DO READINGS

Required Readings

- Lauria and Slotterback (2020). Introduction. In *Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement*, RTPI Library Series, Mickey Lauria and Carissa Slotterback, editors.
- Arnstein (1969). A ladder of citizen participation, *JAPA*
- *Planning with Diverse Communities* (2019) – Chapter 1
- Dedenbach, Frank, Larsen, and Redden (2020). Building the foundation for Arnstein's ladder: community empowerment through a participatory neighborhood narrative process. In *Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement*, RTPI Library Series, Mickey Lauria and Carissa Slotterback, editors.

Week 3 – January 23

Topics

- 'Government in the sunshine' and other procedural and transparency laws
- Role of planners as facilitators and advocates
- Organizations and related fields supporting community engagement

- Power and politics in planning, trust in government, meaningful engagement, and empowerment
- Additional ethical considerations, such as privacy
- Overview of engagement techniques, to prepare for leading one classroom activity

Required Readings

- *A Planner's Guide to Meeting Facilitation* (2019) – Chapters 1-3
- *Planning with Diverse Communities* (2019) – Chapter 4
- Facilitation Tools (Section 3), *Facilitation Basics* (NOAA 2017)

Assignments

- Start case profile

Module 2 – Interpersonal, Public, and Cross-Cultural Communications

Week 4 – January 30

Topics

- Importance of planning communications and incentives
- Principles of effective communications, including perspective-taking, multiculturalism, partnering, visualization, and experiential learning
- Place-making and community-building

Required Readings

- Cross Talk: Make Sure Your Messages to Nonplanning Audiences Don't Get Lost in Translation, *Planning* (magazine) (McIntyre 2019)
- *Don't Be Such A Scientist: Talking Substance in an Age of Style* (Olson 2009) – Chapter 1
- *Planning with Diverse Communities* (2019) – Pages 107-112 (Placemaking)
- Fahmi and Chandra-Putra (2020). Community-based village planning for the reconstruction of post-tsunami and post-conflict Aceh. In *Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement*, RTPI Library Series, Mickey Lauria and Carissa Slotterback, editors.

Assignments

- Meeting assignment due
- Start select case profile

Week 5 – February 6

Topics

- Techniques of planning communications, including interpersonal and technological/multimedia
- Managing conflict and disruptive behaviors
- Rhetoric, biases, and fakery in communications

Required Readings

- *A Planner's Guide to Meeting Facilitation* (2019) – Chapters 6-7
- Taking the Communications High Ground, *PAS Memo*, March/April 2012, American Planning Association (Rooney, Hart, and Johnson)
- Planners and the Digital Commons: Perspectives, Techniques, and Engagement, *PAS Memo* January/February 2014, American Planning Association (Shuler)
- Laskey and Nicholls (2020). Jumping off the ladder: Participation and insurgency in Detroit's urban planning. In *Learning from Arnstein's Ladder: From Citizen Participation to Public Engagement*, RTPI Library Series, Mickey Lauria and Carissa Slotterback, editors.

Assignment

- Select case profile due, continue work on case profile

Module 3 – Engagement Methods

Week 6 – February 13

Topics

- Types of meetings, and their design and facilitation
- Specific engagement activities, including principles and methods

Required Readings

- *A Planner's Guide to Meeting Facilitation* (2019) – Chapters 4-5

Assignment

- Begin classroom activities

Week 7 – February 20

Topics

- Meetings and engagement activities (continued)

Required Readings

- Crafting Charrettes that Transform Communities, *PAS Memo*, November/December 2018, American Planning Association (Madill, Lennertz, and Beyea)

Assignment

- Classroom activities continued

Week 8 – February 27

Topics

- Meetings and engagement activities (continued)
- Interpreting the results and using the products from engagement activities
- Evaluating specific engagement activities

Required Readings

- *A Planner's Guide to Meeting Facilitation* (2019) – Chapter 8 and Appendix C

Assignment

- Classroom activities continued
- Begin group project

Week 9 – March 6

Topics

- None (focus on classroom activities and group project)

Required Readings

- None

Assignment

- Conclude classroom activities
- Group project continued

Week 10 – March 13 **SPRING BREAK NO CLASS**

Module 4 – Consensus Building and Negotiation

Week 11 – March 20

Topics

- Parliamentary procedures and Roberts Rules of Order
- Overview of the consensus building approach as a model for planning
- Cases of consensus building-based planning processes

Required Readings

- *Breaking Robert's Rules* (2006) – Chapters 1-2

Assignment

- Case profile presentations
- Group project continued

Week 12 – March 27

Topics

- None (focus on case profile presentations and group project)

Required Readings

- None

Assignment

- Case profile presentations continued
- Group project continued

Week 13 – April 3

Topics

- History of negotiation and alternative dispute resolution
- Principles and practices of negotiation, including principled vs. positional negotiation, best alternative to a negotiated agreement (BATNA), and mediation

Required Readings

- *Managing Public Disputes* (Carpenter and Kennedy 1988) – pp. 1-38
- *Getting to Yes: Negotiating Agreement Without Giving In, Revised Edition* (Fisher and Ury 2011) – Introduction & Chapter 1

Week 14 – April 10

Topics

- Applications of negotiation and alternative dispute resolution to planning

Required Readings

- Negotiation Processes in Urban Redevelopment Projects: Dealing with Conflicts by Balancing Integrative and Distributive Approaches, *Planning Theory and Practice* 16(3):363-384 (Baarveld, Smit and Dewulf 2015)

Module 5 – Organizational Collaboration

Week 15 – April 17

Topics

- Rationale and principles of collaborative organizations
- Types of collaborative organizations, such as metropolitan/regional compacts, grassroots associations, and learning communities
- Evaluating collaborative organizations

Required Readings

- Thinking Differently for an Age of Complexity (Chapter 1), *Planning with Complexity, 2nd Edition* (Innes and Booher 2018)
- What is Collaboration? (Chapter 1), *Beyond Consensus: Improving Collaborative Planning and Management* (Margerum 2011)
- Producing Results through Interorganizational Networks (Chapter 8), *Beyond Consensus: Improving Collaborative Planning and Management* (Margerum 2011)

Week 16 – April 24

- Complete group project
- Course review and conclusion

Week 17 – May 1

- Finals week – If needed, continue to complete group project